

Creative and innovative regions

Sixth progress report on economic
and social cohesion

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Foreword

We are in a year of crisis. The turmoil is forcing unemployment up and slowing down, if not reversing, economic growth in all regions of the European Union. The main challenge we face today is to overcome it together, to emerge stronger thanks to the full mobilisation of all European assets, in particular at regional and local level. This is why within the European Economic Recovery Package, European regional policy is targeting investments that strengthen the EU's long-term competitiveness.

We should turn the crisis into an opportunity. We should use it to carry out the necessary structural reforms and investments in the European economy which will prepare us for long-term challenges. The keyword of the change should be innovation. We should not forget that this year is also the European Year of Creativity and Innovation.

I have the pleasure to present to you the report which has at its heart this important theme. It analyses innovation in a wider sense – taking into consideration both its technological and non-technological forms. It examines different factors underlying creativity and innovation. It argues that they have a significant regional dimension.

Innovation is not just for the most advanced. In fact, I would say the precise opposite is true – the less developed a region, the more innovative it needs to be. Innovation is a complex process. It is the product of interaction between various policies and partners at different levels. To be effective, action to stimulate innovation must be adapted to the situation in the region concerned, and innovation must take root in it.

The analysis in this report shows that productivity in the poorest regions is growing at double the rate of the rest of the Union. This high productivity growth is driving regional economic convergence and is supported by increasing education levels, wider and better use of ICT and an increasing number of new firms. Nevertheless, the poorest regions still have lower levels of human capital, less talent, ICT use and R&D expenditure and a lower share of the core creative class.

The most developed regions score better on most creativity and innovation indicators. They have also helped to reduce the innovation gap with the United States and Japan, yet the EU still lags on most innovation indicators. Also, many countries outside the EU are better at facilitating start-ups than EU Member States.

The second part of the report relates to Territorial Cohesion. The publication of the Green Paper on Territorial Cohesion last year launched a public debate on key questions related to the territorial dimension of development in the European Union. This Progress Report provides me with the opportunity to present a short overview of the impressive number of contributions we have received. Member States, regional and local authorities, economic and social partners, civil society, European interest groups and academic and research institutes have all provided their ideas and suggestions, which will feed the reflection on the future Cohesion Policy.

Contributions highlighted that territorial cooperation was not only a successful example of European value added but also instrumental in creating more Territorial Cohesion. Virtually all supported cooperation across borders, across large areas such as the Baltic Sea Region, and between regions. Reactions also linked local and sustainable development, access to services and quality of life to Territorial Cohesion. Many also proposed that a more functional approach to geography, for example focus on metropolitan regions or river basins, would allow policies to be more effective. Many also argued that more and better indicators are needed to monitor territorial trends and assess the territorial impact of new policies.

The wider debate on the future Cohesion Policy is ongoing and numerous other events and discussions will help to shape the proposal for the reform of the policy which the Commission will present following the EU budget review.

Danuta Hübner

Commissioner for Regional Policy

Table of contents

1. Introduction	5
2. The regional dimension of creativity and innovation	5
2.1. Creativity	5
2.1.1. Developing local talent	5
2.1.2. Attracting talent and visitors	6
2.1.3. Tolerance	6
2.2. Innovation	7
2.2.1. New firms	8
2.2.2. Existing firms	9
2.3. Conclusion	9
3. Territorial Cohesion: the state of the debate	10
3.1. Definition, scope and scale of territorial cohesion	10
3.2. Better coordination and new territorial partnerships	11
3.3. Better cooperation	11
3.4. Improving understanding of Territorial Cohesion	12
Annex	13

1 Introduction

This report focuses on creativity and innovation because they can help the Union to emerge faster and stronger from the current economic crisis. This is why the European Economic Recovery Plan together with Cohesion Policy targets investments that strengthen the EU long-term competitiveness, such as entrepreneurship, access to finance for SMEs, human capital, ICT, green technology and energy efficiency¹. This plan reinforces Cohesion Policy's link with the Lisbon Strategy and the stronger focus in the period 2007-2013 on innovation to which € 85 billion has been dedicated². The fifth progress report³ highlighted the strong role of certain sectors and economic restructuring in regional development. This recession will accelerate restructuring and hit some sectors hard in particular the financial, construction and automobile sectors will face significant employment losses.

Furthermore, this report argues that creativity and innovation have a crucial regional dimension⁴. The OECD⁵ emphasizes that because innovation is becoming more complex (with more open innovation models, process innovation and the role of absorption and adaptation) no single policy can promote innovation in all regions. Local knowledge needs to be mobilised for regions to design their own innovation systems and

use knowledge and technology more effectively. Last but not least, the European Year of Creativity and Innovation inspired the focus of this report.

The main goal of this report is to show which factors can boost creativity and innovation in both developed and less developed regions. The report covers technological innovation, but also many non-technological forms of innovation such as social, artistic, cultural, process and service innovation.

Regional data available for this report does not yet reflect the crisis. Up until 2007, unemployment rates were shrinking and converging rapidly (see Factsheet 1). But they are now increasing dramatically in Spain, Ireland and the three Baltic States, expected to reach between 11 and 17% in 2009, more than double the rate in 2007⁶. These five Member States are also forecast to suffer economic contractions, bringing to an end a period of sustained growth (see Factsheet 2).

The report also provides a synthesis of the debate on Territorial Cohesion, launched by a Green Paper last year.

This report is accompanied by 11 factsheets mapping and analysing key indicators related to creativity and innovation.

2 The regional dimension of creativity and innovation

This report uses creativity in the sense of generating a new and useful idea, and innovation as putting a new and useful idea into practice. The regional dimension means that an idea⁷ has to be new and useful in the region. As a result, the analysis covers both activities that push the knowledge frontier and ones that allow regions to come closer to that frontier.

2.1. Creativity

How are new and useful ideas generated? Despite the popular image of the solitary inventor, most new ideas are generated by human interaction especially between different and talented people. This is one of the reasons why patent applications and cultural activities are concentrated in cities. To boost such

interaction, regions need to develop their own talent, attract talent and be tolerant of diversity.

2.1.1. Developing local talent

Education and training can help people to develop their talents and creativity. Yet large differences in education levels remain between regions. The share of graduates is almost nine % points higher in Regional Competitiveness and Employment (RCE) and Transition⁸ regions than in Convergence regions (see figure 1). Also participation in lifelong learning lags far behind in Convergence regions, where the rate is half that in RCE regions.

1 COM(2008) 876

2 SEC(2007) 1547

3 COM (2008) 371

4 Regional innovation Scoreboard 2006, MERIT

5 Summary of the OECD Ministerial Meeting: Building Innovative Regions, March 2009

6 Economic Forecast, Spring 2009, EC

7 *On creativity*, 2008, Ernesto Villalba, JRC

8 Phasing in and Phasing out regions are grouped as Transition regions since both receive transitional support

The *human capital intensity* (HCI) index shows a weighted combination of secondary and tertiary educational attainment by the population aged 25–64 (see Factsheet 3). Most regions in Portugal, Italy, Greece and Southern Spain score low, which implies that may stimulate creativity less. The gap between Convergence and RCE regions is wide at nine points, but has shrunk thanks to a higher increase in secondary educational attainment in Convergence regions.

The HCI increased significantly for the whole of the EU over the period 2000–2007. This will continue as more young and better trained people enter the labour force. Women are increasingly gaining medium- and high-level qualifications. Indeed, young women are now often better qualified than young men (see Factsheet 4).

2.1.2. *Attracting talent and visitors*

A region can boost its share of talent by attracting talented people to move there or to visit. Although movements within a country can help some regions and cities, only attracting talent from abroad increases the national pool of talent. The share of foreign-born graduates is only 2% in the EU, compared to 6% in the USA, a level only eight EU regions match. The proposed EU Blue Card⁹ will help to attract more foreign graduates.

The share of working age population born in another country follows the same pattern as the foreign-born graduates, with high shares in London, Luxembourg, Brussels and Vienna, where more than one in three are born abroad (see Factsheet 5), and many very low shares in most of the Central and Eastern Member States. In Convergence regions, it is only 3%, whereas in RCE regions it is four times higher.

Fortunately, for countries and regions with high levels of out-migration, most citizens do not cut their ties with their country of birth. Some Member States, for example, receive substantial inflows of remittances. This provides a strong inflow of capital, the equivalent of one or more % points of GDP a year¹⁰, but this could decline due to the crisis.

Many EU citizens have already gone back to the Central and Eastern Member States due to improving employment opportunities and wages, in part due to Cohesion Policy, and increasing unemployment in some of the major destination Member States. This reduces remittances, but they take their international experience, increased business acumen and contacts with them. In the past, Ireland and Spain lost population due to higher out- than in-migration, but in recent years they have gained population through intra-Community mobility and migration thanks to high economic growth and a more open attitude.

9 COM(2007) 637

10 *Remittance flows to and from the EU, 2007*, Eurostat

11 Art. 21 EU Charter of fundamental rights

Business travel also boosts interaction and the exchange of ideas. Despite more and better opportunities to connect and cooperate online, face-to-face meetings are still in heavy demand. Business and scientific conferences continue to draw large crowds from all over the globe. Business travel is a significant source of growth and employment for many cities and regions. The goal of leisure travel is not the exchange of ideas, but it can contribute to enriching social life in cities thus stimulating creativity. The number of arrivals per capita in hotels (see Factsheet 6) shows some of the most successful business destinations and the very low number of arrivals in the Central and Eastern Member States.

2.1.3. *Tolerance*

Tolerance of different backgrounds and lifestyles helps not only to retain and attract talent, but also to create the open environment in which creativity thrives and diversity is valued. In some countries, however, residents are not very comfortable with a neighbour or someone in the highest elected political position with a different ethnic background, religion or belief, sexual orientation or with a disability (see Factsheet 7). Discrimination on these grounds is prohibited¹¹ in the EU. Nonetheless, in contrast to the USA and Iceland, in eight Member States over half the respondents were not comfortable with someone from a different ethnic background in the highest elected political position and in nine Member States they were not comfortable with a homosexual leading the country.

Although overall, respondents said they thought discrimination had become less widespread in their Member States, in 17 Member States at least one type of discrimination was seen as more widespread than five years ago. In almost all Member States this included ethnic discrimination, but also on the basis of religion, sexual orientation or gender. Although the more developed Member States tend to be slightly more tolerant, some of these still score low and increasing unemployment could lead to more acts of discrimination.

Unemployment rates amongst residents born abroad are often higher in EU Member States, up to double or triple the rate of people born in the country. These high rates are in part due to insufficient knowledge of the local language and lower education levels, but also due to discrimination. As migration from outside the Union will be the only way to stem population decline, ensuring that migrants and their children can find a job or set up a business¹² will become even more important in the future. Better access to appropriate training and higher education will help to improve their integration in the labour market¹³.

12 COM(2008) 394

13 *Jobs for Immigrants, 2008*, OECD

Figure 1: Creativity indicators by type of region

Indicator	Period	Unit	Convergence	Transition	RCE
Tertiary education attainment*	2007	% of population 25-64	17	25	26
Participation of adults aged 25-64 in education and training*	2007	% of population 25-64	5.1	8.1	11.5
Population aged 15-64 born in another country*	2007	% of population 15-64	2.8	10.3	12.5
Unemployment rate	2007	% of active population	9.2	8.4	6.1
Unemployment rate trend	2000 - 07	% point change	-4.6	-3.0	-0.5
Arrivals in hotels*	2006-07	Arrivals per capita	0.7	1.4	1.4
Core creative class*	2006-07	% of population 15-64	5.4	6.9	8.3
Broadband Access**	2008	% of households	32	43	57

* excl. FR9 ** excl. FR9, DE5, DEC, UKD1, UKE1, UKK3, UKM5

The core creative class (see Factsheet 8) is particularly important for an economy as its members generate more ideas and are more likely to set up new companies, creating both growth and jobs in the process¹⁴. Analysis has shown that in the USA¹⁵ this class is attracted to talented, tolerant and high-tech cities. Core creative class professions include engineers, writers, architects, scientists, professors and artists and other professions which entail creating meaningful new products, processes or services.

In the EU, the core creative class is highly concentrated in and around capital regions and in the Benelux and Nordic countries, Ireland and the UK. These regions have a high share of foreign-born graduates, broadband access and often large cities, confirming this preference. These regions and metropolitan areas are increasingly recognised as powerful engines of innovation and many cities are taking action to become more creative by attracting highly skilled, creative people and offering a good environment for innovative occupations and for ideas to be realised¹⁶. Convergence regions have a lower share of core creative class (5%), compared with 8% in RCE regions, which may be due to their lower shares of graduates and foreign-born, and lower ICT use. For example in 2008 broadband access in Convergence regions at 32% remains well below the 57% in RCE regions but much higher than in 2004 when it was only 8%.

14 *Creative class and regional growth*, 2007, R.A. Boschma & M. Fritsch

15 *The Rise of the Creative Class*. 2002, Richard Florida

16 *Competitiveness of European Metropolitan Regions* www.acre.socsci.uva.nl/

17 *European Innovation Scoreboard 2008, 2009*, MERIT

2.2. Innovation

The focus of this report is on the regional dimension, but there is also a global dimension to innovation. Research¹⁷ shows that the EU lags behind the USA, but has started to close this gap. Notably, the EU has higher growth in graduates, researchers, public R&D, venture capital, broadband access and knowledge-intensive service employment and leads on S&E graduates, trademarks, technology balance of payments flows and medium-high and high-tech manufacturing employment.

A new and useful idea can be put into practice in the social, cultural or economic sphere. Social innovation can create better models of childcare, improve healthcare delivery at home and promote sustainable transport. Cultural innovation can lead to new art forms. In the economy, it can reduce energy use, streamline processes and improve the design of products and services, which all tend to boost productivity. Many regions have witnessed a significant productivity growth (see Factsheet 9). The regions with the highest productivity growth tend to be in the Central and Eastern Member States. Since 2000 productivity in industry and services has grown by 2% a year in Convergence regions, double the RCE rate. This growth has been supported by increases in education, better and wider use of ICT and high FDI inflows.

FDI is a crucial source of investments for almost all Central and Eastern Member States (see figure 3), where net FDI flows reach the equivalent of more than 3% of GDP a year between 2005 and 2007. FDI, however, does not necessarily mean the creation of a new firm. Most of FDI involves a foreign investor taking a controlling stake in a company. The high productivity growth

in Convergence regions is the main reason why the gap in GDP per head has narrowed substantially. The gap in employment rates has remained above ten % points since 2000 (see figure 4). GDP per head relative to the EU average increased by six points between 2000 and 2006, bringing the Transition regions within four points of the EU average, and the Convergence regions, at 59, closer to, but still well below, the 75% threshold (see Factsheet 2).

2.2.1. New firms

New ideas are often put into practice by new firms. These can either be a start-up created by a local entrepreneur or by foreign direct investment (FDI). Start-ups are the key to innovation. Innovative new firms can conquer a niche market and grow rapidly (the so-called gazelles). But it is not always easy to create a start-up. The World Bank¹⁸ indicates that it is easier to start a business in at least one hundred other countries than in Germany, Austria, Greece, Spain and Poland (see figure 2). Only Ireland and the UK make it into the top ten.

Figure 2: Ease of doing business ranking, 2009		
Economy	Ease of doing business rank	Starting a business
Ireland	7	5
United Kingdom	6	8
France	31	14
Denmark	5	16
Finland	14	18
Belgium	19	20
Estonia	22	23
Romania	47	26
Hungary	41	27
Sweden	17	30
Portugal	48	34
Latvia	29	35
Slovenia	54	41
Slovakia	36	48
Netherlands	26	51
Italy	65	53
Luxembourg	50	69
Lithuania	28	74
Bulgaria	45	81
Czech Republic	75	86
Germany	25	102
Austria	27	104
Greece	96	133
Spain	49	140
Poland	76	145

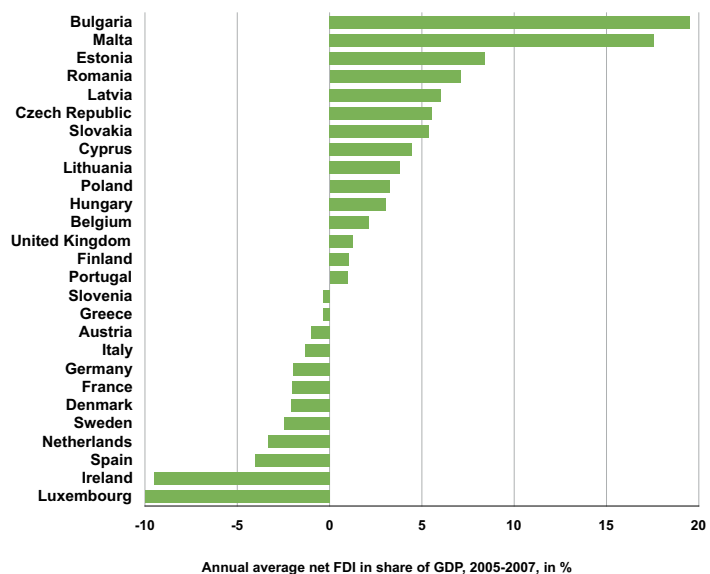
Rank out of 181 countries.
Source World Bank Ease of Doing Business Report 2009

In 2006, the Spring European Council set three clear objectives to make it simpler, cheaper and faster to register a new company, but by 2008 only nine Member States reached all three objectives¹⁹.

Another important way to boost entrepreneurship is to actively promote it as a career option, especially in regions with a high (youth) unemployment rate. Entrepreneurship education could convince more young people to turn ideas into action.

New foreign firms are often concentrated in the capital region for example in the Czech Republic, Slovakia, Finland and Portugal (see Factsheet 10). They also often locate in border regions, particularly along the borders closest to the rest of the EU, for example in Western Poland and Hungary, North-Western Romania, and Eastern France. In 2005-07, Convergence overtook RCE regions in terms of new foreign firms per inhabitant. The crisis will lead to a drop in FDI and fewer new foreign firms. Research²⁰ shows that regional policies are better at encouraging knowledge spillovers from foreign firms than national policies.

Figure 3: Net foreign direct investments as % of GDP
Net FDI flows by Member State 2005-2007



One of the goals of the services directive is to facilitate start-ups in services in other Member States by the end of 2009. This could lead to an increase in FDI, particularly in border regions. A prompt and complete implementation of this Directive by national, regional and local authorities will ensure the highest impact on jobs and start-ups across Europe.

18 Doing Business 2009 Report, World Bank
19 http://ec.europa.eu/enterprise/entrepreneurship/support_measures/start-ups/startups2008.pdf

20 Final Report, 2009, DYNREG
http://www.esri.ie/research/research_areas/international_economics/dynreg

2.2.2. Existing firms

Existing firms innovate with the aid of R&D and other methods²¹, such as technology adoption, non-technological innovation and combining existing knowledge in new ways. Studies²² highlight that large firms invest more in R&D and do more in-house innovation, while SMEs have less access to finance and tend to innovate less and outsource their innovation needs. High-growth SMEs, however, can have an even bigger impact on innovation, but they can be hindered by protected markets and other obstacles.

R&D is highly concentrated both in certain sectors – manufacturing accounts for 80% – and regionally, for example 30% of business expenditure on R&D (BERD, see Factsheet 11) is located in just ten regions. Only in 29 regions do businesses invest more than 2% of GDP in R&D. In most the share is below 1%. Overall, the EU spends far less on R&D than the USA, but some Member States equal the USA level in certain manufacturing sectors. R&D, however, covers only a small share of innovation related expenditure.

In RCE regions, BERD stands at 1.3%, which is four times more than in Convergence regions. In less developed regions, technology diffusion is likely to play a more decisive role, which is illustrated by the stark difference in the number of patents per head, with RCE producing 13 times more patent applications than Convergence regions.

2.3. Conclusion

The financial crisis and recession reinforce the role of creativity and innovation. This analysis has shown that creativity and innovation have a distinct regional dimension. On most indicators RCE regions score high, such as core creative class, R&D and human capital intensity. On others, such as FDI and productivity growth, however, Convergence regions score higher. What conclusions can be drawn from these trends?

Convergence regions can obtain greater benefits from foreign firms by embedding them in their regional economy and improving their absorption capacity. Strong links between foreign firms and local suppliers increase efficiency, local employment and knowledge transfers. These regions should improve the educational attainment and participation in training, which will add to their capacity to absorb new ideas and practices and help them sustain their high productivity growth.

In addition, these regions should increase their appeal to leisure and business travellers by, for example, stimulating cultural and creative activities. This would boost exchanges of new ideas and possibly increase the appeal of the region to new residents and returning migrants.

Transition regions are closing the gap with RCE regions, but still score lower on many of the economic indicators including productivity and employment. Indicators related to innovation such as R&D, patents and human capital are still substantially lower. To move from a focus on cost-effectiveness to an economy fuelled by innovation²³, these regions will need to improve

Figure 4: Innovation Indicators by type of region

Indicator	Period	Unit	Convergence	Transition	RCE
Productivity in industry and services (PPS)	2006	index EU27=100	63	90	113
Productivity trend in industry and services	2000-06	Average annual real productivity growth	1.9	1.3	0.9
Employment rate	2007	% of population 15-64	59	64	69
GDP/head (PPS)	2006	index EU27=100	59	95	122
GDP/head (PPS) trend	2000-06	index point change	5.4	5.9	-4.4
New foreign firms	2005-07	per million inhabitants	268	62	225
Change in new foreign firms	2001-03 2005-07	per million inhabitants	118	-34	-18
R&D expenditure in the business enterprise sector	2006*	% of GDP	0.36	0.42	1.36

* excl. UKM5, UKM6.

21 Neglected Innovators, 2008, MERIT

22 Ex. Innobarometer 2007/2008, Flash EB213, and R&D in Europe, 2009, K. Uppenberg, EIB

23 Global Competitiveness Report 2008-2009, 2008, World Economic Forum

their business environment and invest more in R&D, education and training and the development of core creative skills.

RCE regions should make sure that they obtain the maximum benefit from the high share of residents born in another country, by ensuring that they are integrated into the labour market and making it easier for them to set up their own business. To continue to compete on a global scale, these regions need to increase their investment in creativity and innovation and accelerate the transition from a new idea to a new product, service or process.

Creativity and innovation thrive in an environment where new ideas and approaches are accepted and encouraged. A region in which people are discriminated against on the grounds of their ethnic origin, belief, gender, disability, age or sexual orientation will not only be less just but also less competitive. Therefore, all regions should endeavour to reduce discrimination and promote intercultural dialogue and more openness towards people with different backgrounds or lifestyles.

3 Territorial Cohesion: the state of the debate

In article 3, the Lisbon Treaty makes Territorial Cohesion an explicit Objective for the future of Cohesion Policy. Moreover, the current crisis with its asymmetric territorial impacts has increased the importance of Territorial Cohesion within the EU, and the discussion about the concept has gained momentum.

In October 2008, the European Commission adopted a Green Paper on 'Territorial Cohesion'²⁴ launching a broad public debate on Territorial Cohesion and its policy implications. The Commission was pleased to receive 391 responses²⁵, including contributions from all Member States, from nearly 100 regional authorities, from more than 150 regional and local associations as well as from cities, economic and social partners, civil society organisations, research institutions, and individual citizens. The European Parliament, the Committee of the Regions, and the European Economic and Social Committee have all adopted their opinions on the Green Paper on Territorial Cohesion.

This section briefly summarises the key outcomes from the consultation.

3.1. Definition, scope and scale of Territorial Cohesion

The Green Paper on Territorial Cohesion did not propose a definition, but asked for one. The European Parliament, in its reaction, expressed the concern that without a 'commonly agreed, shared and understood definition' it would be difficult to discuss the policy implications. Some respondents shared this concern, but others argued that demanding a precise definition would needlessly delay the discussions. Fortunately, a broad agreement on the goal and basic elements of territorial cohesion emerged from this debate.

The goal of Territorial Cohesion is to encourage the harmonious and sustainable development of all territories by building on their territorial characteristics and resources.

The three basic elements proposed to achieve this goal were broadly supported:

- concentration (achieving critical mass while addressing negative externalities),
- connection (reinforcing the importance of efficient connections of lagging areas with growth centres through infrastructure and access to services), and
- cooperation (working together across administrative boundaries to achieve synergies).

The replies highlighted that Territorial Cohesion complements and reinforces economic and social cohesion and underlined that the three basic elements were already implicitly present in Cohesion Policy. For some, Territorial Cohesion essentially serves social and economic cohesion, while for most it is a wider, horizontal concept underpinning all policy areas at all administrative levels.

Many contributors underlined the solidarity dimension of Territorial Cohesion; some as a territorial dimension of the European social model. This implies that economic and social disparities between territories at all levels (from the EU to regional and local level) need to be taken into account. Many replies stated that a good quality of life, equal opportunities and access to services of general interest in all territories are crucial both for solidarity and competitiveness.

A minority of respondents proposed to link territorial cohesion to a small number of geographical features which may influence

24 COM(2008) 616

25 http://ec.europa.eu/regional_policy/consultation/terco/consultation_en.htm

development. They also proposed specific EU policies and funding or even comprehensive EU strategies for these territories. However, the majority of replies, including a clear majority of Member States, argued that these features do not in themselves determine success or failure, nor take account of the capacities of Member States and regions to provide appropriate policy responses, and therefore do not require specific treatment, let alone compensation. These reactions confirm that the socio-economic situation of territories should be the basis for policy intervention and design. In addition, they emphasized that Cohesion Policy already provides sufficient flexibility to tackle different problems in different territories.

Many reactions argued that different issues (e.g. social exclusion or urban sprawl, accessibility to services or the risk of flooding) require policy responses at different territorial levels. These may vary from deprived urban neighbourhoods to metropolitan areas, from river basins to mountain areas. The need for European support and desired flexibility to address problems in a functional manner should be considered in the light of the subsidiarity principle.

3.2. Better coordination and new territorial partnerships

The majority of contributions associate territorial cohesion with an integrated approach, multilevel governance, and partnership; all three appreciated assets of Cohesion Policy. In particular, Community Initiatives such as URBAN and rural development's LEADER were mentioned favourably. Yet, many replies argued that territorial cohesion should lead to a further improvement of the territorial dimension in the design and implementation of Community policies. For example, many reactions asked for a better coordination and coherence between different EU instruments and funds.

A clear consensus emerged that public policies at different levels need to take into account their territorial impact to avoid contradictory effects. This is particularly true for European policies with a territorial impact, such as cohesion, transport, energy, agriculture, environment, employment, competition and research policies. Several contributions stressed that the territorial dimensions of the Lisbon and Gothenburg strategies should also be considered. Taking the territorial impact into account during the phase of policy formulation would improve synergies and effectiveness. This is why a better understanding of the territorial impact of public policies is needed. Most reactions requested the EU to play a key role here, for example by testing ways to strengthen the territorial dimension of existing impact assessments.

All contributions agreed that coordination can also be improved through more multi-level governance. For the vast majority, this does not change the distribution of competences, especially as regards spatial planning. The important role of regional and local actors – including representatives from cities and towns, the private sector and civil society – in formulating, implementing, and evaluating policies was emphasized by many replies. Contributions invite the EU to facilitate territorial governance across borders (e.g. urban-rural partnerships, city-regions, networks of towns) so as to reach critical mass in providing public services or to develop projects of common interest. A number of contributions stated that the EU has a role in supporting institutional capacity at various spatial levels through Cohesion Policy, which also increases the efficiency of non-EU funded policies.

3.3. Better cooperation

The three strands of Territorial Cooperation are almost unanimously recognised as key for Territorial Cohesion and clear examples of EU added value. There is a strong demand for reinforcing territorial cooperation by making it more strategic, but – at the same time – more flexible and simple. In this regard, the European Grouping of Territorial Cooperation (EGTC) is welcomed and its potential recognised.

Cross-border regions are regarded as laboratories of European integration. Stakeholders from cross-border agglomerations or natural areas, for example, could test integrated development plans and service delivery.

The majority of contributions underline the importance of coordinating national and regional strategies, regulations and funding in favour of the sustainable development of whole transnational areas, as was done in the Baltic Sea Strategy.

The EU should facilitate exchanges of experience and best practices. There is wide support for strengthening inter-regional cooperation (in particular INTERREG C and URBACT), especially networking and benchmarking on solving problems regardless of administrative borders.

Finally, contributions call for better coordination of cohesion and external policies; strengthening the European Neighbourhood Policy and using the EGTC on the external borders as well.

3.4. Improving understanding of Territorial Cohesion

All respondents agreed that better tools for territorial analysis and indicators to understand territorial trends are needed. Improved analysis at NUTS3 level, development of thematic analyses on migration or climate change or the improvement of territorial impact assessment instruments can all improve policy design. The ESPON programme and the Urban Audit are regarded as key assets in this respect.

The Commission is urged to complement for analytical purposes GDP per head with other indicators of quality of life (e.g. human development, sustainability, vulnerability, accessibility of services).

1 Annex

Indicator	Period	Unit	Convergence	Transition	RCE	Notes
Tertiary education attainment	2007	% of population 25-64	17	25	26	(1)
Tertiary education attainment trend	2000-2007	% point change	4.0	4.9	5.2	(1) (2)
Participation of adults aged 25-64 in education and training	2007	% of population 25-64	5.1	8.1	11.5	(1)
Human capital intensity	2007	index EU27=100	95	92	104	(1)
Human capital intensity trend	2000-2007	index point change	1	6	-1	(1) (2)
Population aged 15-64 born in a non-EU27 country	2007	% of population 15-64	1.9	7.0	8.8	(1) (3)
Population aged 15-64 born in another EU27 Member State	2007	% of population 15-64	0.8	3.3	3.7	(1) (3)
Population aged 15-64 born in another country	2007	% of population 15-64	2.8	10.3	12.5	(1) (3)
Unemployment rate	2007	% of active population	9.2	8.4	6.1	
Unemployment rate trend	2000-2007	% point change	-4.6	-3.0	-0.5	
Arrivals in hotels	2006-07	Arrivals per capita	0.7	1.4	1.4	(1) (3) (4)
Arrivals in hotels trend	2000-01 - 2006-07	% point change	0.16	0.2	0.11	(1) (3) (4)
Core creative class	2006-07	% of population 15-64	5.4	6.9	8.3	(1)
Core creative class trend	2000-01 - 2006-07	% point change	1.1	0.9	1.0	(1) (2)
Broadband Access	2008	% of households	32	43	57	(1) (5)
Productivity in industry and services (PPS)	2006	index EU27=100	63	90	113	
Productivity trend in industry and services	2000-2006	Average annual real productivity growth	1.94	1.27	0.94	
Authors of EPO patent applications	2004-2005	Inventors per million inhabitants	30	78	397	
Employment rate	2007	% of population 15-64	59	64	69	
Employment rate trend	2000-2007	% point change	2.9	6.0	3.1	(2)
GDP/head (PPS)	2006	index EU27=100	59	95	122	
GDP/head (PPS) trend	2000-2006	index point change	5.4	5.9	-4.4	
New foreign firms per million inhabitants	2005-07	Total new foreign firms per million inhabitants	268	62	225	
Change in new foreign firms per million inhabitants	2001-03 - 2005-07	Total new foreign firms per million inhabitants	118	-34	-18	
R&D expenditure in the business enterprise sector	2006 (est.)	% of GDP	0.36	0.42	1.36	
R&D expenditure in the business enterprise sector trend	2000-2006 (est.)	% points of GDP	0.04	0.08	0.01	(6)

(1) excl. FR9

(2) excl. UKM5 and UKM6

(3) excl. IE

(4) excl SK

(5) excl. DE5, DEC, UKD1, UKE1, UKK3 and UKM5

(6) estimate excl. BE3, FR9 and major parts of UK

1. Unemployment rate

Measures the number of people aged 15 or more who are without work but looking for work and available for work, divided by the number of people aged 15 or more and active in the labour market, i.e. those working or looking for work.

Why does this matter?

High unemployment is a threat to social cohesion leading to poverty and social exclusion and it is one of the most important incentives for people to leave their regions.

	Convergence	Transition	RCE
Unemployment rate, 2007	9.2	8.4	6.1
Change in unemployment rate, 2000-07	-4.6	-3.0	-0.5

The rapid reduction of unemployment rates in the Convergence regions between 2000 and 2007 reduced the gap between the Convergence and RCE regions by half. In 2000, the rate in Convergence regions was double that in RCE regions. The Convergence regions are faced mainly with structural unemployment due to a skills mismatch; which is often caused by rapid restructuring. Convergence regions tend to have low rates of participation. This means that as employment rates increase, people who were not working or looking for work may start to look for a work, thus partially offsetting the decline in the unemployment rate.

How do the EU regions score?

Regional disparities among the EU-27 regions remain high. The French overseas departments and Ciudad Autónoma de Ceuta and Melilla have the highest unemployment rates, partly due to distance to the rest of the Union. The unemployment rates are also high in Leipzig, Berlin and Brussels, the latter both capital cities.

The 45 regions with rates over 10% can be found mainly in Belgium, Southern Italy, Poland and the East German Länder. In contrast, regions like Zeeland, Praha and most regions in Northern Italy have rates of 3% or lower.

Country	Top ten regions	Unemployment rate
This table shows the ten regions with the highest rate of unemployment in 2007		
FR	Réunion	25.2
FR	Guadeloupe	25.0
FR	Martinique	22.1
FR	Guyane	21.0
ES	Ciudad Autónoma de Ceuta	20.3
ES	Ciudad Autónoma de Melilla	18.2
DE	Mecklenburg-Vorpommern	17.4
DE	Leipzig	17.2
BE	Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest	17.1
DE	Berlin	16.3

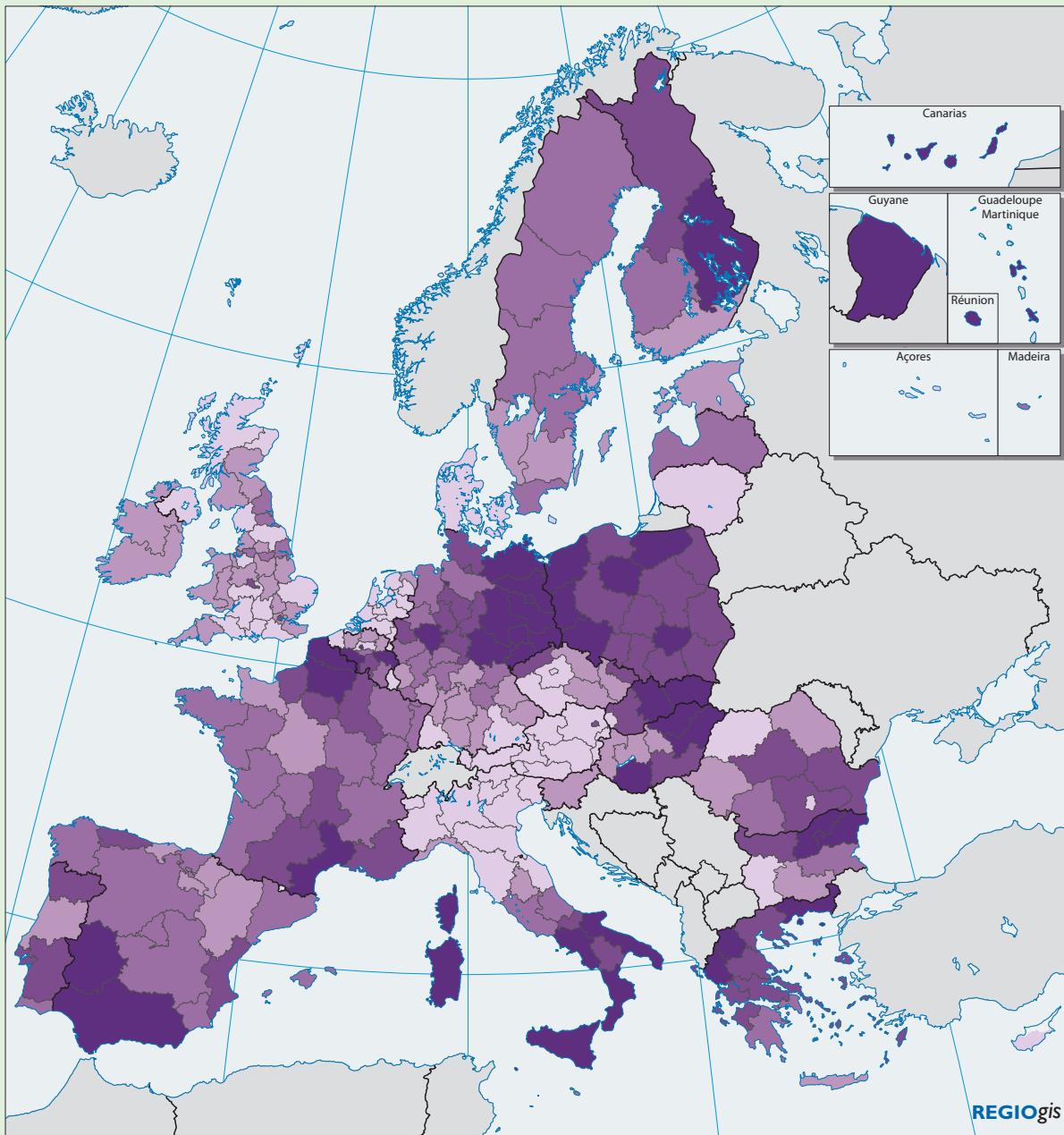
Country	Top ten regions	Change in unemployment rate, percentage points
This table shows the ten regions in which the unemployment rate decreased fastest between 2000 and 2007		
ITF6	Calabria	-14.8
PL62	Warmińsko-Mazurskie	-13.1
ITF3	Campania	-12.5
LT00	Lietuva	-11.6
ES61	Andalucía	-11.3
ITG1	Sicilia	-11.0
FR83	Corse	-10.9
PL43	Lubuskie	-10.9
ITG2	Sardegna	-10.7
ES43	Extremadura	-10.5

excl. FR9 (=DOM), UKM5 (N E Scotland), UKM6 (Highlands and Islands), PT20 (Azores) and PT30 (Madeira)

The ten top movers had an average unemployment rate of 22% in 2000 and only 10% in 2007. The coefficient of variation, a statistical measure of regional disparities, was 14% lower in 2007 than four years ago, which means that the difference between the regions with high and low unemployment rates has narrowed.

Unemployment rates dropped significantly in the Baltic States, Bulgaria, Southern Italy and Spain. On the other side, several regions in Portugal and Eastern Germany, Austria, Hungary and Luxembourg witnessed a substantial increase in the unemployment rates.

In most cases, reductions in unemployment rates are correlated with increased levels of GDP per capita and lower levels of poverty. Conversely, regions with growing unemployment tend to have lower levels of economic growth and higher levels of poverty.



Unemployment rate, 2007

% of labour force

- < 4.3
- 4.3 - 5.9
- 5.9 - 7.7
- 7.7 - 9.6
- ≥ 9.6
- No Data

EU-27 = 7.2
Source: Eurostat

0 500 Km

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data: <https://circabc.europa.eu/d/d/workspace/SpacesStore/e69bacc8-b082-4d48-a67a-62bdda3a88e6/09003.xls>

2. GDP/head

Gross Domestic Product per head in Purchasing Power Standards.

Why does this matter?

Gross domestic product (GDP) is the total value of all goods and services produced within a region in a given time span. GDP/head is the level of output per inhabitant which is an indication of the average level of economic wealth generated per person. In order to compare regions, it is computed in Purchasing Power Standards (PPS) which eliminates differences in purchasing power due to different price levels between regions.

In general, the level of GDP per head is closely related to global economic performance, in particular to production factor productivity and employment. Its change in time indicates the pace of economic development.

How do the EU regions score?

The geographical distribution of GDP/head underlines large development gaps between EU regions and particularly between the Western and the Central and Eastern Member States. The top ten regions are all located in the West and are often capital city regions. At the other end of the spectrum, several regions in Bulgaria and Romania have levels of GDP/head below 30% of the EU-27 average. The lowest level is 25% in Nord-Est, Romania.

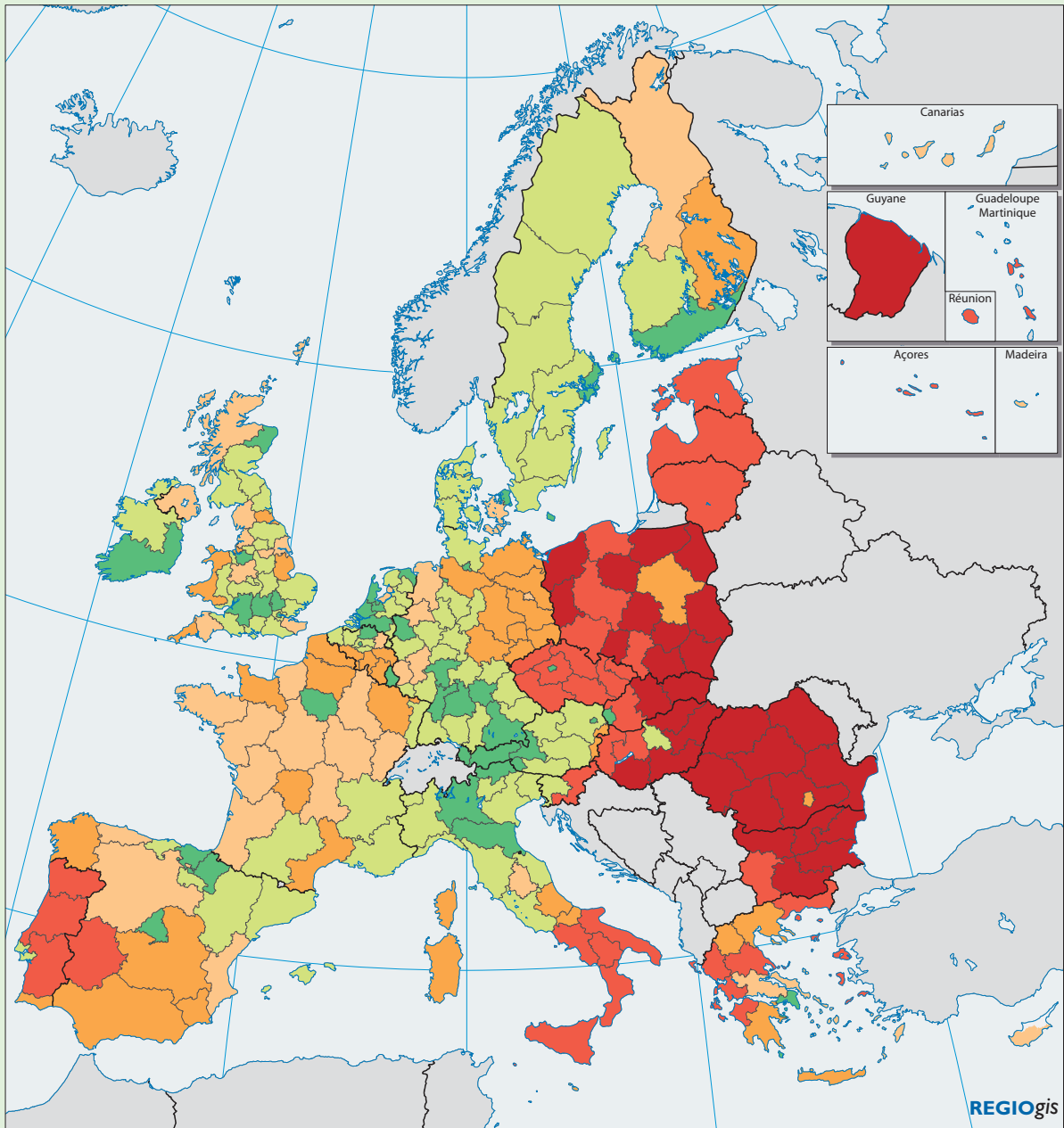
Country	Top ten regions	GDP per head in PPS EU-27=100
This table shows the ten regions with the highest GDP per head in PPS in 2006		
UK	Inner London *	335.9
LU	Luxembourg (Grand-Duché) *	267.1
BE	Région de Bruxelles-Capitale / Brussels Hoofdstedelijk Gewest *	233.3
DE	Hamburg *	199.7
NL	Groningen	173.7
FR	Île de France	169.7
DE	Oberbayern	167.9
AT	Wien	165.9
SE	Stockholm	165.8
UK	Berkshire, Buckinghamshire and Oxfordshire	164.0

* In these regions, GDP/head figures tend to be overestimated because of commuter flows.

Country	Top ten movers	Difference in GDP per head in PPS
This table shows the ten regions with the biggest increase in GDP per head in PPS between 2000 and 2006		
SK	Bratislavský kraj	39.9
RO	București - Ilfov	30.5
CZ	Praha	25.7
LU	Luxembourg (Grand-Duché)	23.4
EL	Attiki	23.0
NL	Groningen	23.0
BG	Yugozapaden	20.7
EE	Eesti	20.7
HU	Közép-Magyarország	19.3
RO	Vest	18.0

Regions where GDP per head has increased often host the national capital or a large city. Strong upward trends are also frequently observed in regions with a low level of GDP/head, like for instance Yugozapaden, Bulgaria whose GDP/head is only 32% of the EU average but whose index grew by almost 21 percentage points between 2000 and 2006. On the other hand, modest changes in GDP per head are observed in regions where its level is already high, particularly in Northern Italy or in some regions of Denmark, France, Germany, Sweden or Finland for example, in Provincia Autonoma Bolzano/Bozen where GDP/head index decreased from 159 to 136.

This suggests that poor regions are catching up with the rest of the EU and is consistent with the fact that convergence among EU regions in terms of GDP/head has increased. Between 2000 and 2006, the coefficient of variation, which is a statistical measure of regional disparities, decreased by 8%. The trend is however worrisome for regions of Southern Italy and Portugal where both GDP/head and growth are relatively low.



GDP/head (PPS), 2006

Index, EU-27 = 100

- < 50
- 50 - 75
- 75 - 90
- 90 - 100
- 100 - 125
- >= 125

Source: Eurostat

0 500 Km

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3. Human capital intensity Index

Measures the quality of the labour force.

Why does this matter?

Human capital is at the core of the knowledge based economy. It is the volume of all knowledge that in a country, a region or a sector is used or is potentially available for the production of goods and services. In many regions, demographic change will produce a need to replace decreasing labour by increasing human capital to attain higher productivity.

Country	Top ten regions in 2007	HCI EU27 = 100
This table shows the ten regions with the highest human capital intensity index in 2007		
DE	Dresden	137
DE	Leipzig	136
DE	Chemnitz	134
SE	Stockholm	134
DE	Brandenburg - Südwest	133
BE	Prov. Brabant Wallon	132
UK	Inner London	132
CZ	Praha	131
EE	Eesti	130
FI	Etälä-Suomi	129

Human capital intensity (HCI) is calculated from the EUROSTAT Labour Force Survey data by adding the share of population aged 25-64 with a 'medium' qualification level to the share of population aged 25-64 with a 'high' qualification level times two. A Human Capital Index is then calculated dividing by the EU-27 average and multiplying by 100. The tertiary educational attainment is weighted by a factor of two because the duration of tertiary education is about twice that of secondary II education (general education and vocational training). Since there is a strong relationship between formal education and an individual's future career path, qualifications acquired in skills-intensive jobs are taken indirectly into account.

How do the EU regions score?

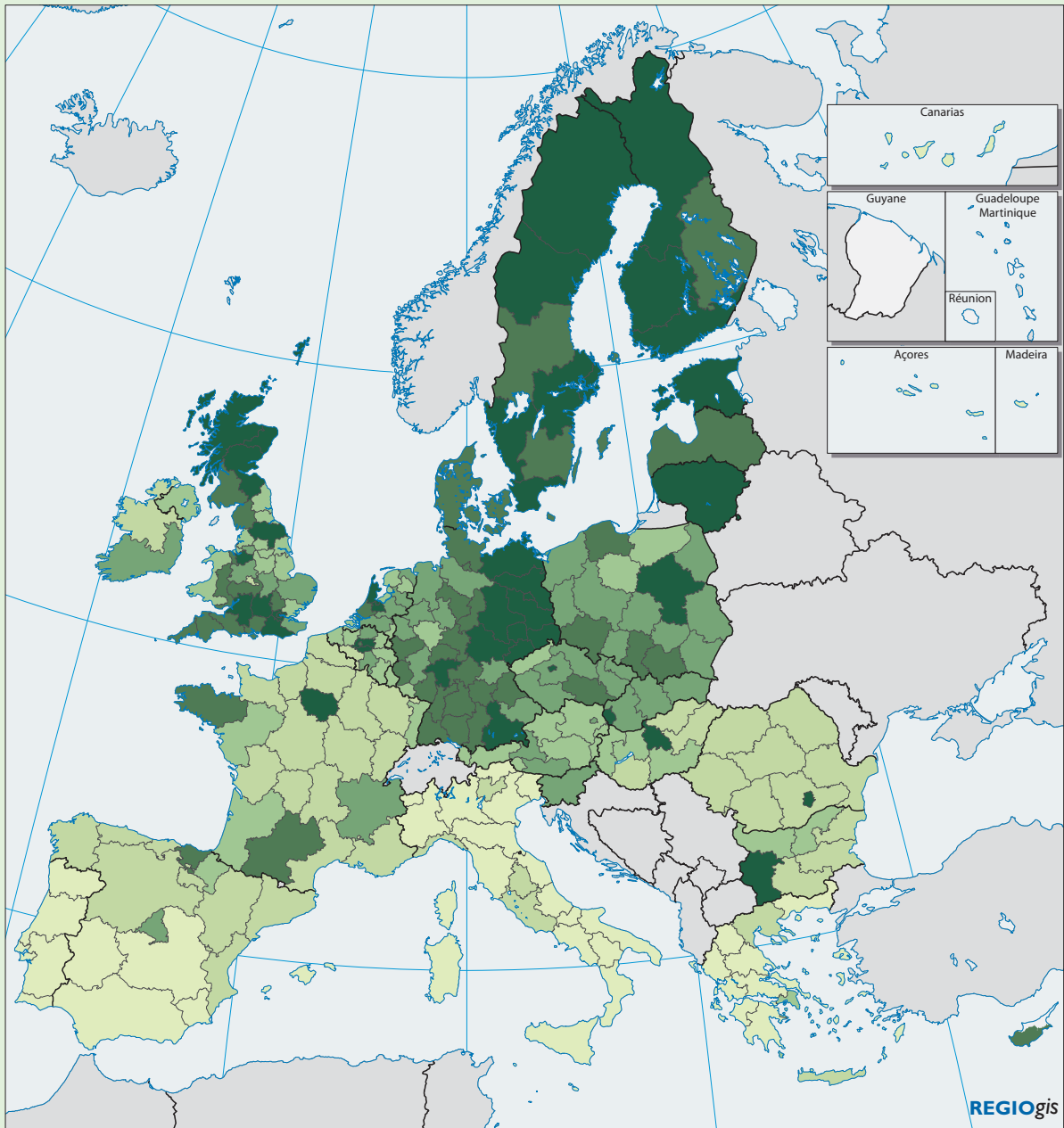
EU-wide HCI increased from 17.3 to 18.9 between 2000 and 2007, a remarkable increase of 9% over a period of only 7 years. Nevertheless, very substantial differences remain. National values vary between 7.9 in Malta and 24.5 in Estonia.

	Convergence	Transition	RCE
Human Capital Intensity (EU-27 = 100)	95	92	104
Evolution 2000-2007	1	6	-1

As reflected by the top ten regions, the highest growth rates have been in Ireland and in Southern European regions. As a result disparities between Member States and between regions actually declined over the period 2000 – 2007.

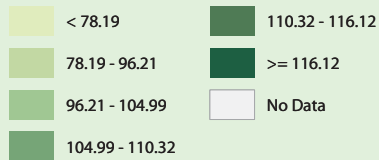
Country	Top ten movers	Change in HCI index
This table shows the ten regions in which the human capital index increased most between 2000 and 2007		
IE	Border, Midland and Western	30
IE	Southern and Eastern	26
ES	Galicia	22
ES	Aragón	20
ES	La Rioja	19
PT	Região Autónoma da Madeira	19
ES	País Vasco	18
EL	Kriti	17
EL	Dytiki Ellada	17
ES	Castilla-La-Mancha	17

This trend is set to continue. The differences in HCI concerning the younger age groups in working life are far less pronounced than for the population as a whole. This is the result of increasing participation rates in post-obligatory secondary education in regions that were lagging behind. Moreover much of the growth is actually due to raising shares of high qualifications. The diffusion of medium- and higher-level qualifications in the economies of less developed regions is improving as well. These developments point to an increasing endogenous potential for innovation and creativity to be 'exploited' as well as a challenge for local institutions and firms.



Human capital intensity, 2007

Index, EU-27 = 100



Sources: Eurostat, DG REGIO



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data: <https://circabc.europa.eu/d/d/workspace/SpacesStore/debfc573-2522-457e-90d1-51dde89dedba/09008.xls>

4. Human capital intensity by gender

Measures the quality of the labour force by gender.

Why does this matter?

Human capital is at the core of the knowledge based economy. It is the volume of all knowledge that in a country, a region or a sector is used or is potentially available for the production of goods and services. Traditionally women had less access to medium and high level qualifications than men, reducing thereby the overall potential for innovation and creativity.

Human capital intensity (HCI) is calculated from the EUROSTAT Labour Force Survey data by adding the share of population aged 25-64 with a 'medium' qualification level to the share of population aged 25-64 with a 'high' qualification level times two.

Country	Top ten regions	HCI men	HCI women
This table shows the ten regions with the highest HCI for women in 2007			
DE	Leipzig	131	142
DE	Dresden	134	140
EE	Eesti	119	140
DE	Chemnitz	130	139
SE	Stockholm	129	139
FI	Etelä-Suomi	121	137
BG	Yugozapaden	120	136
BE	Prov. Brabant Wallon	129	135
DE	Brandenburg-Südwest	132	134
SE	Mellersta Norrland	109	134

The tertiary educational attainment is weighted by a factor of two because the duration of tertiary education is about twice that of secondary II education (general education and vocational training). Since there is a strong relationship between formal education and an individual's future career path, qualifications acquired in skills-intensive jobs are taken indirectly into account.

How do the EU regions score?

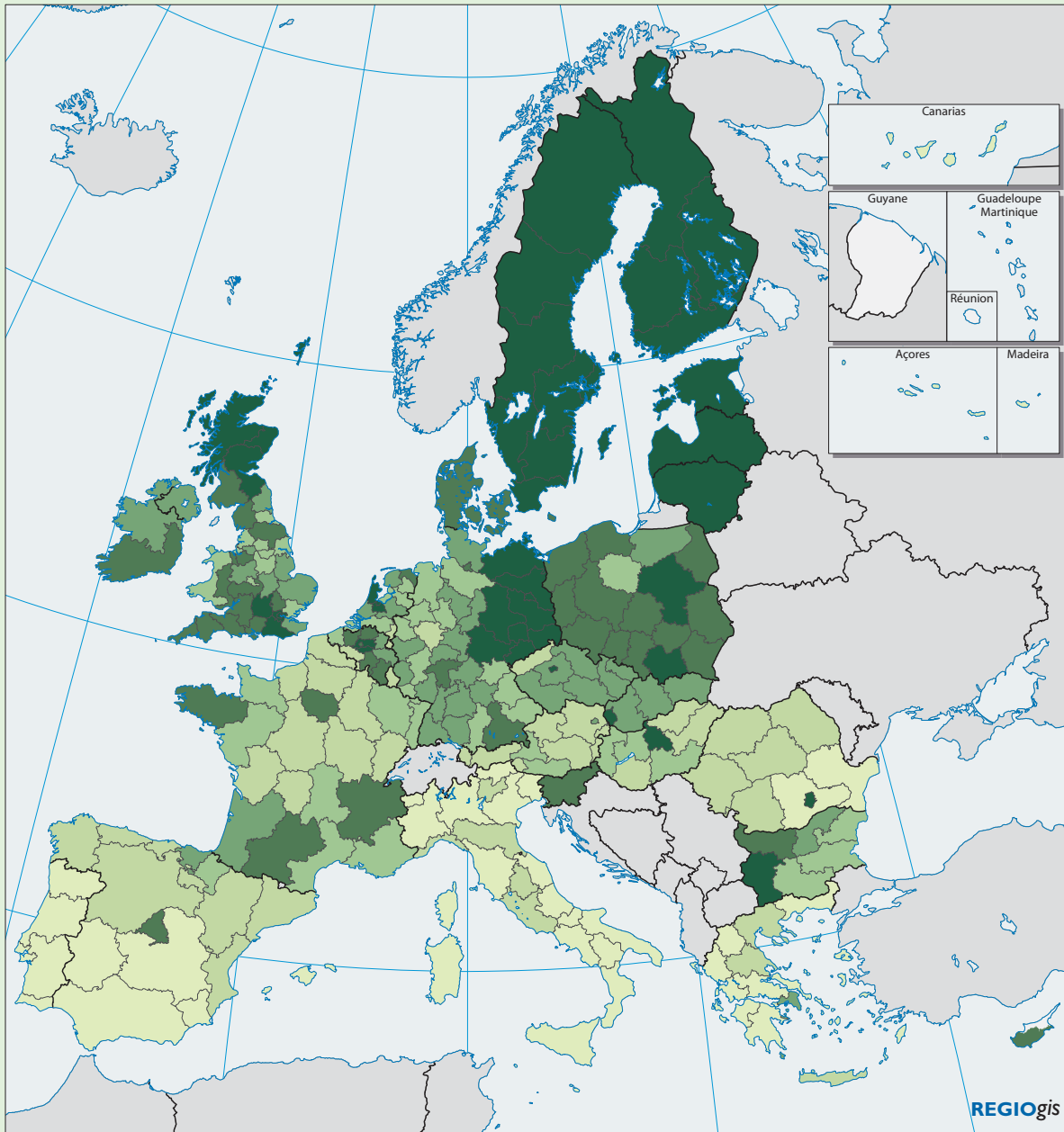
EU-wide HCI increased from 17.3 to 18.9 between 2000 and 2007, a remarkable increase of 9% over a period of only 7 years. This is mostly the result of the participation of younger age groups and more particularly young women in post-obligatory secondary and higher education. Over the period 2000-2007 the HCI gap between men and women has reduced from 1.5 to 0.5. In 2000, the HCI index for women was higher than or equal to that for men in approximately one region in four. It is now the case in nearly half the regions.

	Convergence	Transition	RCE
HCI Index for women (2007)	96	95	103
Evolution 2000-2007	1.1	6.6	-0.9

Comparing the 2007 HCI by gender and by age groups gives an insight of the mechanisms underlying this trend. The HCI is higher for the age group 25-34 in virtually all regions than for the age group 60-64, though more so for women than for men. While the HCI of men is higher than for women in the age group 55-64, it is generally the reverse in the age group 25-34. Contrary to the generation that is 20 to 40 years older, young women are now better qualified than young men.

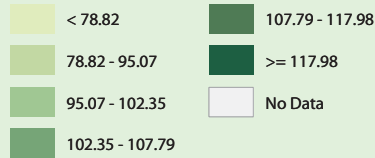
Country	Top ten movers	Change in HCI index
This table shows the ten regions in which the HCI index for women increased most between 2000 and 2007		
IE	Border, Midland and Western	31
IE	Southern and Eastern	28
ES	Galicia	22
ES	Aragón	21
ES	Castilla-La Mancha	18
ES	País Vasco	18
EL	Thessalia	18
EL	Kriti	18
ES	Cantabria	17
FR	Nord - Pas-de-Calais	17

The proportion of the working population prepared to invent new products, to apply new techniques in marketing, to cover local demand for services and adapt to new technologies is growing for both genders and more rapidly for women than for men.

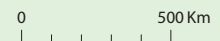


Human capital intensity (women), 2007

Index, EU-27 = 100



Sources: Eurostat, DG REGIO



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data: <https://circabc.europa.eu/d/d/workspace/SpacesStore/fa082951-83de-4ca7-9e7f-3d2004e4ba80/09009.xls>

5. Foreign born population of working age

Measures the number of people aged 15-64 residing in a country which is different from the country of birth divided by the total population aged 15-64. The data does not take into account seasonal work and education/training (unless they imply a change of residence), movement of workplace over shorter periods (daily commuting) or movement of workplace without a change in permanent residence.

Why does this matter?

The diffusion of new ideas and practices by people with different backgrounds boosts creativity and productivity. Labour born abroad brings important diversity to the working process. Migrants are often younger and more dynamic than the people who stay. International mobility of the working age population also plays an important role in adjustment to the changes induced by globalisation, e.g. changes in demand, technologies and so on.

	Convergence	Transition	RCE
Population aged 15-64 born in another country	2.8	10.3	12.5

The working age population born in a different country tends to concentrate in wealthier regions. The RCE regions have a considerably higher share of working age population born in a different country. It is four times higher than in the Convergence regions. In the Transition regions, the share is three times higher than in the Convergence regions.

How do the EU regions score?

The share of working age population born in a different country differs widely between regions and Member States.

The capital regions in Western Europe are the most attractive for the foreign born working age population and people of different backgrounds in general, which is one of the reasons that many metropolitan regions generate more patents and are more productive.

The Illes Balears and Flevoland form the only exception. In the latter case, the majority of people residing in the region actually work in the capital city. In all the cases, except Luxembourg, the vast majority of the foreign born were born in a country outside the EU.

Country	Top ten regions	Population aged 15-64 born in another country, % of total population 15-64
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This table shows the ten regions with the highest share of population aged 15-64 born in another country

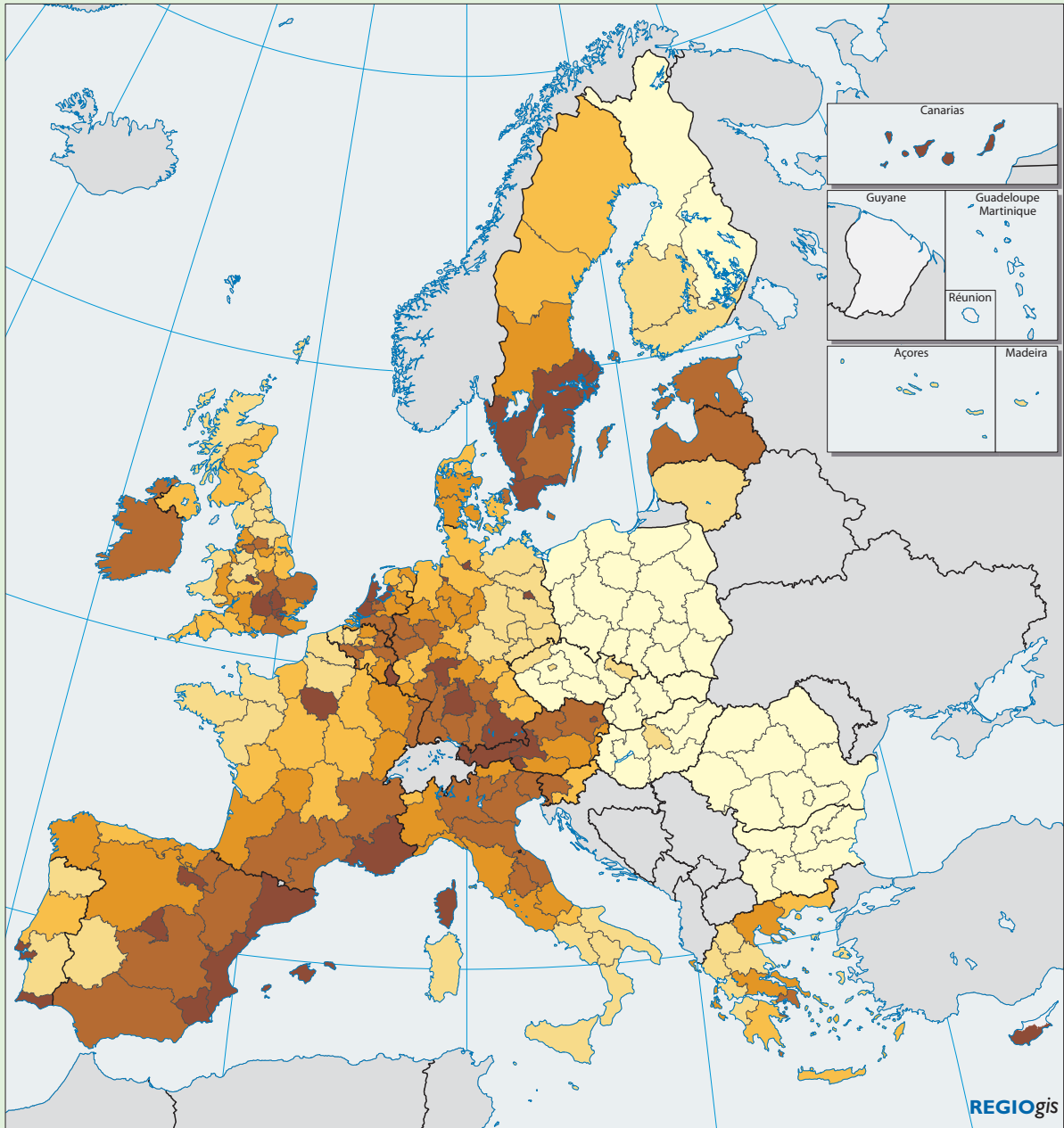
UK	Inner London	45.3
LU	Luxembourg (Grand-Duché)	41.8
BE	Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest	38.1
AT	Wien	36.1
UK	Outer London	34.6
ES	Illes Balears	25.2
FR	Île de France	23.2
SE	Stockholm	22.0
ES	Comunidad de Madrid	21.9
NL	Flevoland	21.8

DE: nationality not country of birth

IE: nationality of total population (all ages)

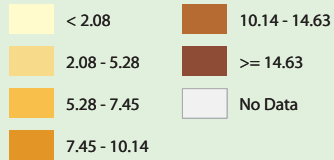
The shares tend to be very low in most of the Central and Eastern Member States. All the regions with a share of working age population born in a different country below 1% are located in Romania, Bulgaria, Poland and Hungary.

Differences in the innovation capacity and creativity between the richer and poorer regions is one of the reasons for the gap in economic development.



Population aged 15-64 born in another country, 2007

% of population 15-64

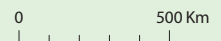


EU27: 9.2

Germany: population aged 15-64 of foreign nationality;

Ireland: total population of foreign nationality

Source: Eurostat (LFS)



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data: <https://circabc.europa.eu/d/d/workspace/SpacesStore/cb028ac4-d967-4f0c-b581-e6368a6a417b/09001.xls>

6. Hotel arrivals per inhabitant

Measures the number of arrivals per inhabitant in hotels and similar establishments in 2007.

Why does this matter?

Hotel arrivals are often used to measure the importance the tourism industry. Tourism is a key economic sector in some regions where it provides a substantial number of jobs, in particular for low-skilled workers. Travel and tourism are also important channels for conveying new people and new ideas. Besides leisure and recreational activities, hotel arrivals account for business and scientific conferences, which constitute a major source of growth in some regions.

How do the EU regions score?

Regions with a high number of hotel arrivals per inhabitant are generally located in the Western Member States which host all top ten regions. Most of these regions are in Southern Europe and/or offer an attractive natural environment, notably mountainous areas.

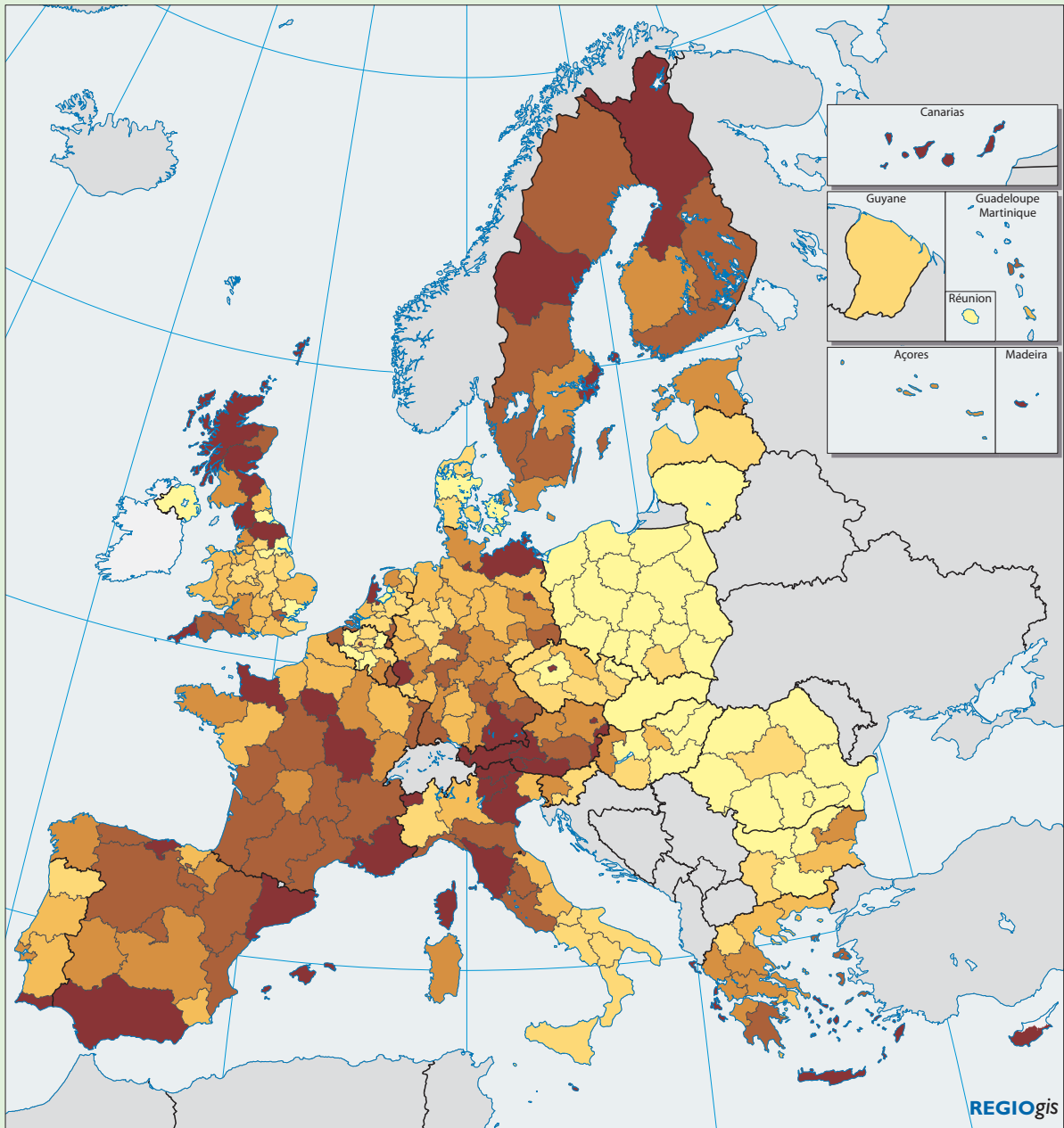
Country	Top ten regions	Hotel arrivals per head
This table shows the ten regions with the highest number of hotel arrivals per inhabitant		
IT	Provincia Autonoma Bolzano/Bozen	9.1
AT	Tirol	8.8
ES	Illes Balears	8.1
AT	Salzburg	7.3
EL	Notio Aigaio	7.0
PT	Algarve	6.0
IT	Valle d'Aosta/Vallée d'Aoste	5.1
EL	Ionia Nisia	4.9
IT	Provincia Autonoma Trento	4.7
UK	Highlands and Islands	4.4

Most regions in the Central and Eastern Member States feature much lower number of hotel arrivals per capita. Regions with the highest number of hotel arrivals are Praha (3.5), Malta (3.0) and Cyprus (3.0). Such records remain exceptional and on average, the number of hotel arrivals is 0.64 in the 10 Central and Eastern Member States against 1.57 in the Western Member States.

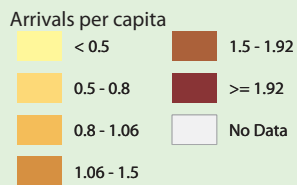
However, regions where the number of hotel arrivals has grown the fastest are mostly in the Central and Eastern Member States. Between 2000 and 2007, hotel arrivals grew by 22.4% in Lietuva and by 22.3% in Yugoiztochen, Bulgaria. In the other Member States, the highest growth rate is in Região Autónoma dos Açores, Portugal but is only 7.6%.

Country	Top ten movers	Average annual change in hotel arrivals in %
This table shows the ten regions with the fastest growth of hotel arrivals between 2000 and 2007		
LT	Lietuva	22.4
BG	Yugoiztochen	22.3
LV	Latvija	16.4
BG	Yugozapaden	14.6
BG	Severozapaden	13.3
BG	Severen tsentralen	11.2
PL	Łódzkie	11.2
PL	Lubuskie	10.7
PL	Podlaskie	10.4
RO	București - Ilfov	10.4

This shows that the potential for tourism related development is far from fully exploited in the Central and Eastern Member States. For some of their regions, this domain still presents important opportunities for starting up new activities and therefore constitutes a major source of future growth and employment.



Arrivals in hotels and similar establishments, 2007



Source: Eurostat



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data: <https://circabc.europa.eu/d/d/workspace/SpacesStore/30284270-4b68-4cac-828e-7167735af790/09005.xls>

7. Tolerance index

This measure is based on nine questions in special Eurobarometer (269) of 2008 on discrimination. The index is the share respondents who are comfortable with the following nine situations: seeing a woman, or someone of a different ethnicity, a different religion or belief, who has a disability or is a homosexual elected to the highest political office or (with the exception of a woman) living next door to one of the above. A difference of more than 5 % points between Member States is statistically significant.

Why does this matter?

Discrimination greatly reduces the quality of life and the opportunities of its victims. It also hinders social and economic development as often the best candidates for a job or position are not selected and the most dynamic will move away. Innovation thrives in more open and tolerant societies, and in this way also boosts development.

How do the Member States score?

Overall, the EU is a relatively tolerant place: four out of five respondents said they were comfortable with these situations. Most respondents were comfortable with a neighbour with a disability (93%) and a woman in the highest elected political position (92%). The share of respondents for these questions was consistently high in all Member States.

Country	Top ten MS	Tolerance index
The ten Member States with the highest % of respondents comfortable with an individual falling under one of the following categories being elected to the highest political office: different ethnicity, religion or belief, sexual orientation or (with the exception of women) living next door to one of the abovementioned individuals.		
SE	Sweden	91
NL	Netherlands	90
DK	Denmark	87
FR	France	87
IE	Ireland	86
ES	Spain	85
LU	Luxembourg	84
UK	United Kingdom	84
PL	Poland	83
BE	Belgium	83

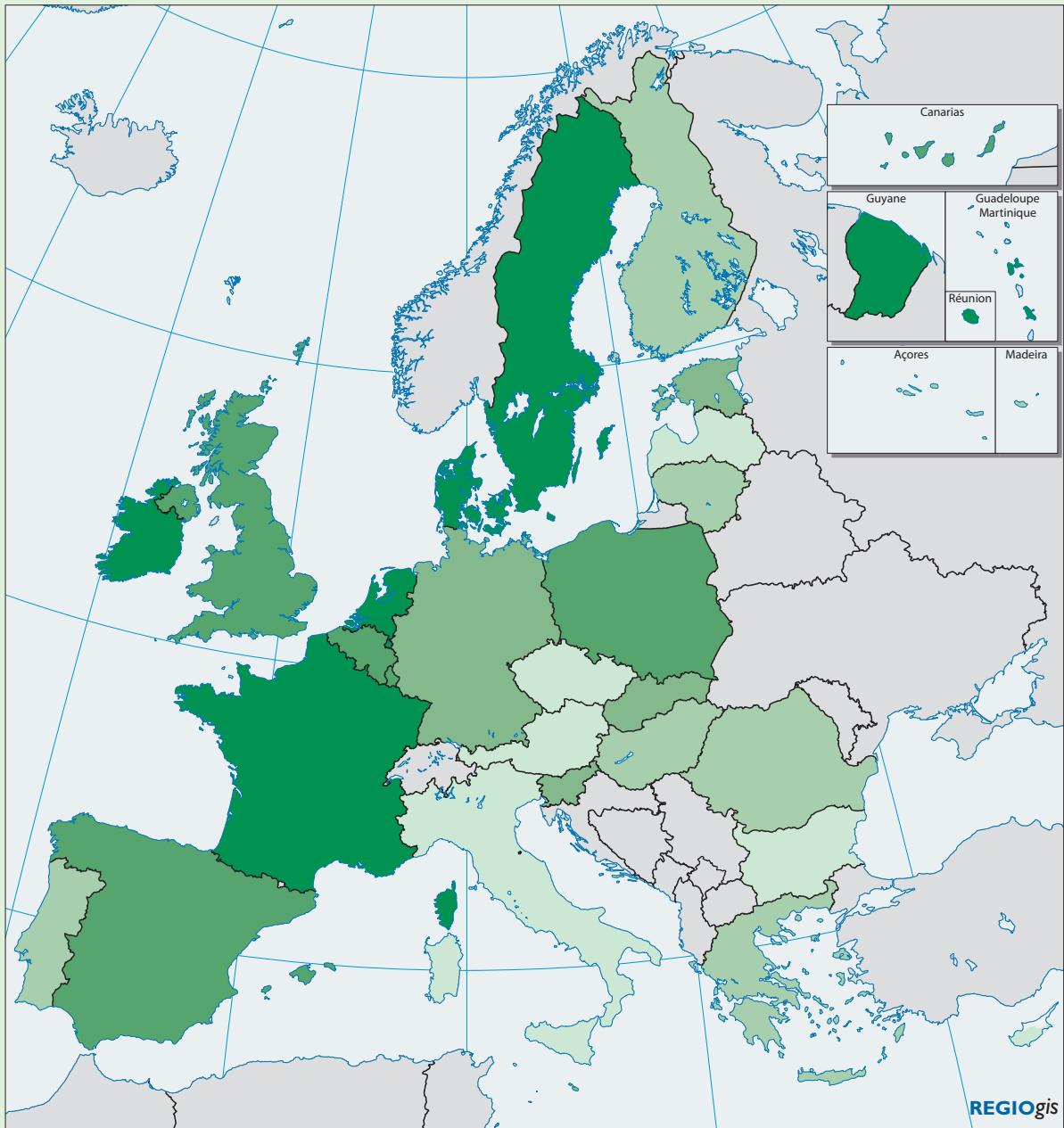
The least respondents were comfortable with someone with a different ethnicity (60%) or religion (65%) or a homosexual (67%) in the highest elected political position. On these questions opinions differed more between Member States. For example, in the Netherlands 94% are comfortable with a homosexual in the highest elected political position while in Bulgaria 25%. In Sweden 83% are comfortable with a person with a different ethnicity in the highest elected political position as compared to 29% in Cyprus.

Country	Top ten MS	Increasing tolerance index
The ten Member States with the highest share of respondents stating that discrimination on the basis of gender, sexual orientation, ethnicity and religion had become less widespread in the past five years in % of respondents, 2008		
CY	Cyprus	81
PL	Poland	78
CZ	Czech Republic	74
FI	Finland	72
BG	Bulgaria	72
LT	Lithuania	71
EE	Estonia	71
LV	Latvia	70
EL	Greece	70
RO	Romania	69

The majority of respondents said that discrimination was less widespread than five years ago, in particular for women and the disabled. But the majority in 15 Member States said that ethnic discrimination had become more widespread. For example, in The Netherlands, Denmark and Bulgaria two out three respondents thought that ethnic discrimination had become more widespread in their country.

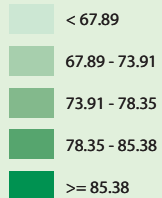
Overall, the EU is relatively tolerant, but tolerance of neighbours and politicians of a different ethnic group, religion or sexual orientation is lower and discrimination based on ethnicity was perceived as having grown in most Member States.

1 Score of 6 or higher on the range of 1 (very uncomfortable) to 10 (totally comfortable)



Tolerance index, 2008

% of respondents with a comfort level of six or more (1=very uncomfortable to 10=completely comfortable)

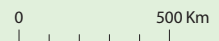


Q6: How would you feel about having a neighbour who is a disabled person, a homosexual, a person from a different ethnic origin or a person with a different religion or belief?

Q8: How would you feel about having in the highest elected political position in your country a woman, a homosexual, a person from a different ethnic origin, a person with a different religion or belief or a disabled person?

EU27: 78

Source: Special Eurobarometer 296 - Discrimination in the EU, 2008



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data: <https://circabc.europa.eu/d/d/workspace/SpacesStore/ec00bd8f-5331-4b7b-96b0-ccf430b0592d/09002.xls>

8. Core creative class

Measures the share of the population aged 15-64 in professions which require the creation of meaningful new forms as defined by Richard Florida in his book *The Rise of the Creative Class*.

Why does this matter?

The Core Creative Class has a strong impact on the number of new start-ups and new jobs. They are typically the people who come up with new ideas and put them into practice, which leads to more new and more innovative and productive firms and more jobs. Research has shown that this class has a stronger impact on economic development than the share of those tertiary educated.

How do the EU regions score?

	Convergence	Transition	RCE
% Core creative class on population aged 15-64 2006-07	5.4	6.9	8.3
Change in % core creative class 2000-01 – 2006-07 in % points	1.1	0.9	1.0

The Convergence regions lag behind the RCE regions. On average, the difference is just under three % points.

Country	Top ten regions	% Core creative class
The ten regions with the highest share of population aged 15-64 in the core creative class in 2006-07		
SE	Stockholm	15.0
NL	Utrecht	14.3
UK	Inner London	13.6
RO	Bucuresti – Ilfov	12.6
FI	Etelä-Suomi	12.6
UK	Berkshire, Buckinghamshire and Oxfordshire	12.6
CZ	Praha	12.5
NL	Noord-Holland	12.4
BE	Prov. Brabant Wallon	12.1
FR	Île de France	11.9

No data FR9 (=DOM) and DK national level

The top ten regions are either capital regions or regions located close to the capital with a major university. In some Member

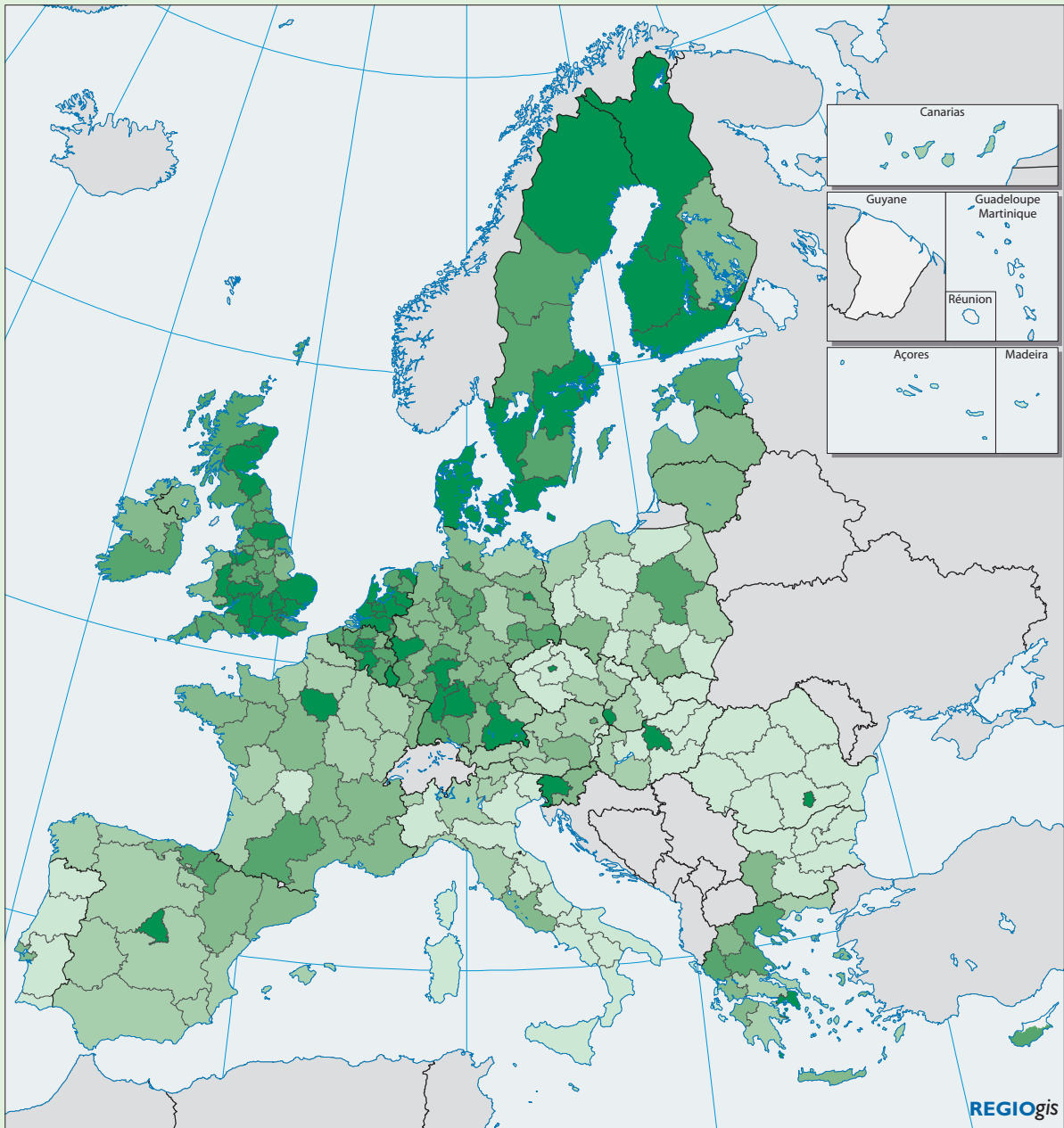
States, the share of creative class tends to be high in most regions such as in the UK, the Netherlands, Finland, Sweden and Belgium, while in others such as Portugal, Bulgaria and Romania only the capital region has a high share.

Country	Top ten movers	Change in % core creative class
The ten regions where the share of population aged 15-64 in the core creative class increased most between 2000-01 and 2006-07 in % points		
UK	Cornwall and Isles of Scilly	3.9
SI	Zahodna Slovenija	3.4
EL	Thessalia	2.7
DE	Trier	2.7
PL	Mazowieckie	2.7
ES	País Vasco	2.5
LU	Luxembourg (Grand-Duché)	2.5
EL	Ipeiros	2.5
PL	Śląskie	2.4
EL	Attiki	2.4

No data for RO FR9 and DK national level

Over the six year period, the share of the creative class grew by 1% point in the EU to 7%. The top ten movers, however, have increased their share substantially, which has allowed all of these regions, with the exception of Śląskie, to surpass the EU average. Also the top ten movers contain many capital regions or regions with major universities.

In conclusion, capital regions and regions with major universities are successful at creating jobs for the creative class. This will give these regions an edge when it comes to employment growth and the number of start-ups, especially high-tech start-ups. Although the Convergence regions did not catch up with the RCE regions, they did manage to generate the same increase in the core creative class as the EU.



Core creative class employment, average 2006-2007

% of population aged 15-64

- < 5.01
- 5.01 - 6.06
- 6.06 - 7.58
- 7.58 - 9.31
- >= 9.31
- No Data

EU27: 7.24
 Core creative class includes International Standard Classification of Occupations (ISCO) codes 21,221,222,23,243,244,245,347 and 521.
 Source: Eurostat



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data: <https://circabc.europa.eu/d/d/workspace/SpacesStore/28b89acc-a9ee-4ac8-aa00-4bf157aa7588/09004.xls>

9. Productivity in industry and services

This is Gross Value Added (GVA) divided by persons employed in industry and services.

Why does this matter?

Productivity growth is the main source of higher economic growth in the Union. Productivity can increase when employment declines or when GVA grows. The first is usually a sign of restructuring, with shifts out of labour-intensive activities. The increase in GVA relative to employment, on the other side, occurs independently from the phase of economic development and is an indication of high innovation capacity, high education levels, good governance and so on. It has long-term implications for the competitiveness of the regions/countries.

	Convergence	Transition	RCE
Productivity in industry and services (PPS) in EU-27=100, 2006	63	90	113
Change in productivity in industry and services, average annual % change 2000-2006	1.94	1.27	0.94

The Convergence regions score better on productivity in industry and services than on GDP per capita because the high share of employment in agriculture distorts the productivity figures and because the lower employment rates in these regions are responsible for a part of the gap.

How do the EU regions score?

The top ten regions are located mainly in capital cities and industrial areas of Northwest Europe. Most other Dutch regions, Belgian Vlaams Brabant, the regions in the North-western part of Germany and West of Austria also lie above 120%. On the other end, the Bulgarian and Romanian regions occupy the first ten places having improved from 12% to 25% as compared to the EU average. All the Central and Eastern Member States lie below the EU average.

Country	Top ten regions	Labour productivity in industry and services, in PPS, indexed to the EU average
This table shows the ten regions with the highest labour productivity in industry and services in 2006		
NL	Groningen	196
LU	Luxembourg (Grand-Duché)	153
DE	Hamburg	151
FR	Île de France	150
BE	Région de Bruxelles Capitale/Brussels Hoofstedelijk Gewest	148
DE	Oberbayern	141
SE	Stockholm	140
DE	Darmstadt	138
NL	Utrecht	138
BE	Prov. Brabant Wallon	136

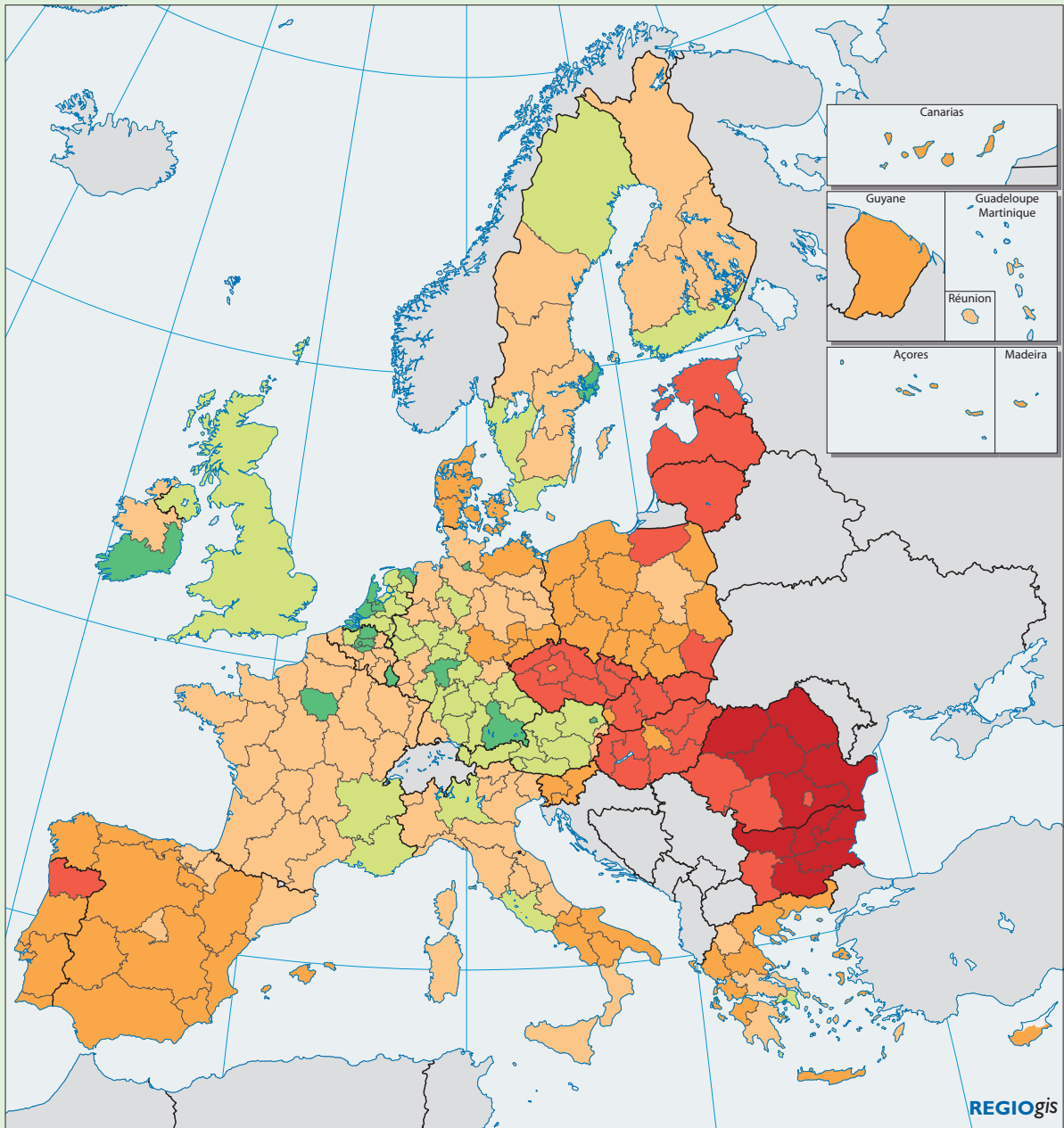
excl. the regions of the UK

Except Groningen, the average labour productivity of the regions among the top ten movers was below 30% of the EU value in 2007 and 22% in 2000. In fact, all the regions with an annual average % change of three or more are located in the Central and Eastern Member States, except the capital region of Greece. Severozapaden and Yugoiztochen in Bulgaria, but also many regions in the South of Italy, have not followed this trend and recorded a negative change in industrial and service labour productivity.

The increase in productivity in the Central and Eastern Member States signals a fast catch-up process to the average EU productivity and GDP/capita levels.

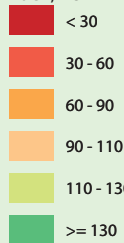
Country	Top ten movers	Change in productivity in industry and services, annual average % change 2000-2006
This table shows the ten regions with the fastest growth of labour productivity in industry and services between 2000 and 2006		
LV	Latvija	6.17
EE	Eesti	6.15
LT	Lietuva	5.82
CZ	Moravskoslezsko	5.28
RO	Sud - Muntenia	4.89
SK	Bratislavský kraj	4.72
RO	Sud-Vest Oltenia	4.69
PL	Dolnośląskie	4.67
NL	Groningen	4.58
HU	Közép-Magyarország	4.55

excl. the regions of the UK



Labour productivity in industry and services, in PPS, 2006

Index, EU-27=100



GVA/persons employed
 BE, AT: 2005
 MT: including all sectors
 UK: national level, including all sectors
 Source: Eurostat



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data: <https://circabc.europa.eu/d/d/workspace/SpacesStore/b3e7b432-6ec4-47e3-af25-3596eb306857/09006.xls>

10. New foreign firms

Measures the number of new foreign firms created per million inhabitants.

Why does this matter?

A new foreign firm means a significant amount of foreign direct investment. It could entail building an entirely new factory and employing hundreds of people or taking a controlling stake in a firm, freeing up funds for further investments.

A new foreign firm means a new and often strong competitor for firms which produce a similar product or service in the region. However, it also presents an opportunity to develop a strong cluster and for competitors and suppliers to learn new business practices. By embedding the firm in the region, positive knowledge spillovers can be enhanced, making the region more innovative and productive.

How do the EU regions score?

The Convergence regions have become an attractive destination for new foreign firms. In less than five years, these regions have almost doubled the number of new foreign firms moving in. In the most recent period, Convergence regions outperformed the RCE regions.

	Convergence	Transition	RCE
New foreign firms per million inhabitants 2005-07	267.5	61.6	224.7
Change in new foreign firms per million inh. 2001-03 to 2005-07	117.9	-33.9	0.94

The top ten regions are located mostly in Romania and the UK. The map also shows the strong preference for new foreign firms to locate in the capital region. Five out of the top ten regions include their national capital. The non-capital regions of Portugal, Slovakia and the Czech Republic score low. All the Greek regions and most of the Italian and Spanish regions also score low.

Overall, the UK, Ireland, Romania, Austria, Poland and the Benelux attract many new foreign firms.

Country	Top ten regions	New foreign firms per million inhabitants
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This table shows the ten regions with the highest number of new foreign firms per million inhabitants in the period 2005-07

RO	Bucuresti - Ilfov	6.813
UK	Inner London	5.143
RO	Vest	1.911
RO	Centru	1.592
RO	Nord-Vest	1.340
UK	Berkshire, Buckinghamshire and Oxfordshire	1.155
IE	Southern and Eastern	1.154
UK	Surrey, East and West Sussex	878
BE	Région de Bruxelles-Capitale/Brussels Hoofdstedelijk Gewest	843
UK	Outer London	771

No data for ES63 and ES64

The changes over time have been substantial with Romania, Ireland, London and Stockholm improving their already good performance considerably. At the other end of the spectrum several regions also saw a big reduction in the number of new foreign firms. The capital regions of Belgium, Bulgaria, Austria and Denmark, and Hamburg saw the number of new foreign firms per head drop by more than 400.

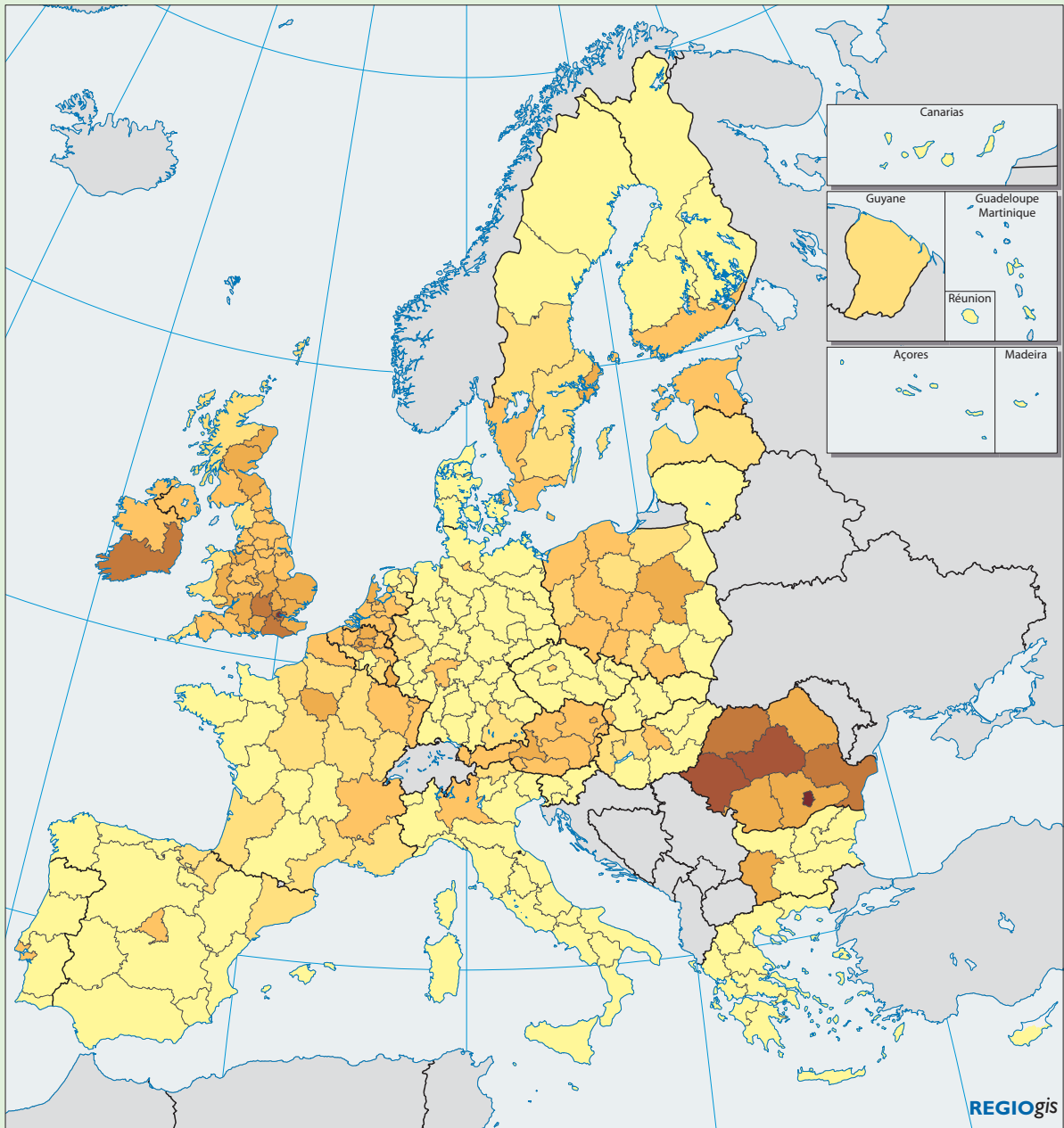
In conclusion, foreign firms and FDI will continue to play a key role in EU regional development. The key question is which regions will be able to capitalise on this trend and which will not, especially in light of the crisis.

Country	Top ten movers	Change in new foreign firms per million inhabitants
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This table shows the ten regions with the biggest increase in the number of new foreign firms per million inhabitants between the periods 2001-03 and 2005-07

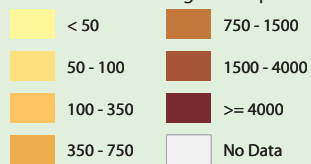
RO	Bucuresti-Ilfov	2.602
RO	Vest	1.215
IE	Southern and Eastern	1.123
RO	Centru	1.062
UK	Inner London	979
RO	Nord-Vest	867
RO	Sud-Est	504
UK	Surrey, East and West Sussex	452
SE	Stockholm	358
RO	Sud - Muntenia	353

Excl. ES63 and ES64



New foreign firms, 2005-07

Number of new foreign firms per million inhabitants



Source: ISLA-Bocconi



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data: <https://circabc.europa.eu/d/d/workspace/SpacesStore/1aeda910-cb05-4474-b638-91996367d560/09010.xls>

11. Business expenditure on R&D

Measures the share of regional GDP invested in business expenditure on research and development (BERD).

Why does this matter?

BERD indicates the extent to which firms in the region are active in developing innovations and transforming new ideas into market opportunities through R&D. In general, the majority of activities related to R&D take place within the private sector. BERD is therefore also a key indicator of the region's involvement in terms of innovation.

How do the EU regions score?

Scores in this dimension vary widely across EU regions. BERD is highly concentrated from a geographical point of view. Ten regions account for an 32% of this type of expenditure in the EU.

Regions with the highest BERD to GDP ratio are all located in Germany, the Nordic Member States and the UK, with BERD exceeding 3% of GDP. At the other end of the spectrum, a series of regions mainly located in Bulgaria, Greece, Poland, Portugal, Romania and Spain have shares that are practically negligible.

Country	Top ten regions	BERD in % GDP
The ten regions with the highest Business expenditure on R&D as a % of GDP in 2006		
DE	Stuttgart	4.9
SE	Västsverige	4.6
DE	Braunschweig	3.9
FI	Pohjois-Suomi	3.7
DE	Oberbayern	3.7
UK	Lancashire	3.6
UK	Essex	3.4
SE	Sydsverige	3.4
SE	Stockholm	3.2
DE	Tübingen	3.2

BE NUTS1, DK national, no data for FR9 (=DOM) and BG31

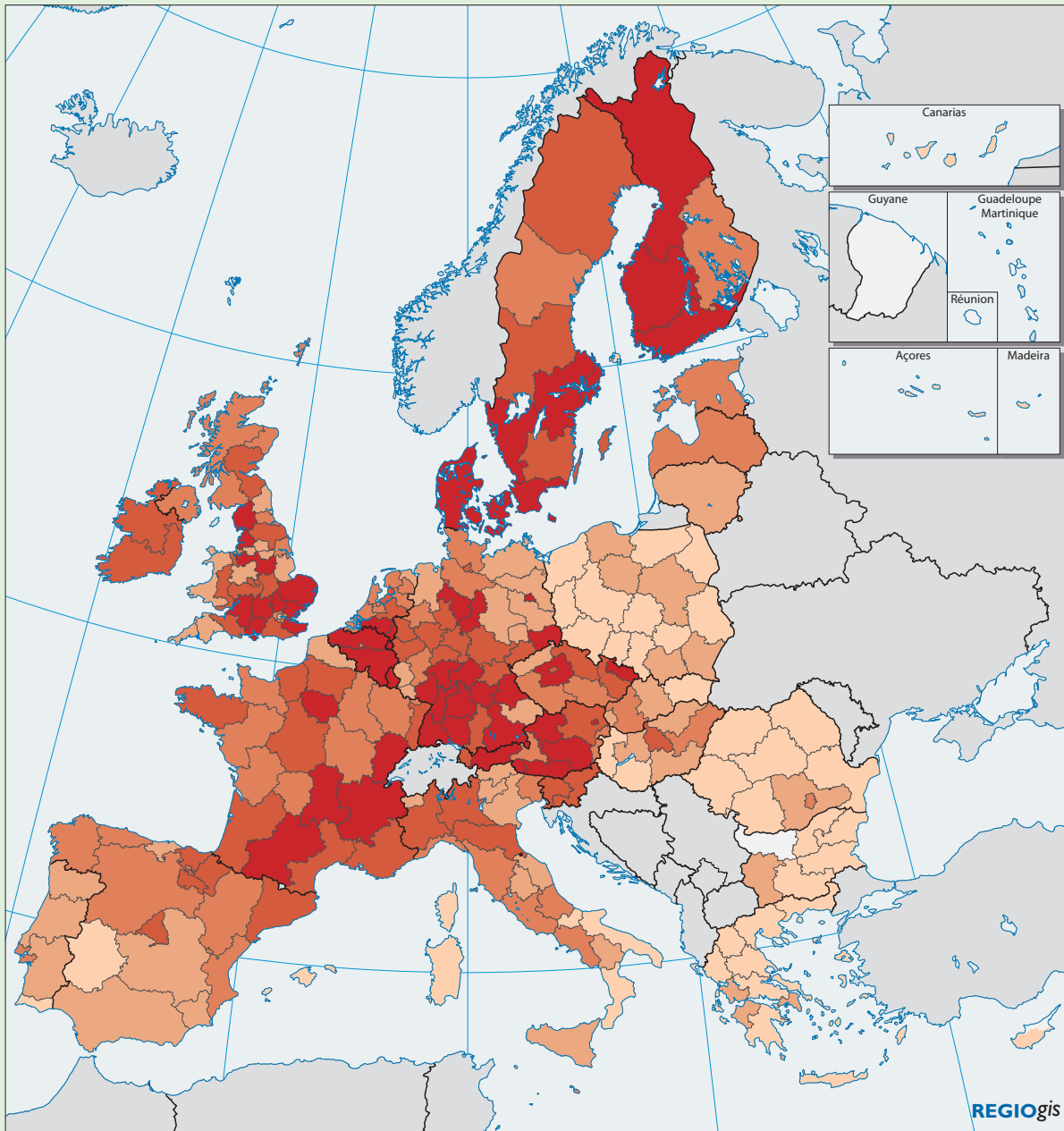
In general, regions in the Western Member States have much higher BERD than in the Central and Eastern Member States. On average, the share of regional GDP spent of BERD is 1% in the Western 15 Member States against 0,3% in the 10 Central and Eastern Member States, Malta and Cyprus.

Country	Top ten movers	Change in BERD as % of GDP
The ten regions with the biggest increase in % points in BERD as a % of GDP, 2000-2006		
FR	Midi-Pyrénées	1.20
AT	Kärnten	1.12
CZ	Moravskoslezsko	1.05
SE	Västsverige	0.90
CZ	Praha	0.75
IE	Border, Midland and Western	0.74
AT	Oberösterreich	0.73
ES	Comunidad Foral de Navarra	0.73
AT	Steiermark	0.62
SE	Sydsverige	0.59

BE and UK NUTS1; BG, DK and SI national, no data for FR9 and 7 PL regions

Changes in the BERD also feature important variations from one region to another. In Midi-Pyrénées and Kärnten, the ratio of BERD to GDP increased respectively by 1.20 and 1.12 percentage points between 2000 and 2006. In Rheinhessen-Pfalz and Střední Čechy, the share of GDP spent on BERD decreased by 0.82 and 0.73 respectively over the same period.

Regions with a high growth of BERD are mostly located in the West, with some exceptions such as the two Czech regions. If this trend of high BERD growth in the West continues, R&D based innovation would concentrate even further in this part of the Union.



R&D expenditure in the business enterprise sector, as % of GDP, 2006

% of regional GDP

- < 0.17
- 0.17 - 0.35
- 0.35 - 0.69
- 0.69 - 1.37
- ≥ 1.37
- No Data

EU27: 1.18
 DE, IE, EL, IT, NL, PT, SK, SE, UK: 2005
 FR: 2004
 Source: Eurostat



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data: <https://circabc.europa.eu/d/d/workspace/SpacesStore/a593f3e2-9e9f-4038-b572-de147ac3194e/09011.xls>



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